THE UNIVERSITY OF ALBERTA

PERSONALITY OF THE PRINCIPAL AND SCHOOL ORGANIZATIONAL CLIMATE

by

ROBERT PIERCY PLAXTON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

APRIL, 1965

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Personality of the Principal and School Organizational Climate," submitted by Robert Piercy Plaxton in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

The purposes of this study were to compare the pattern of personality types found among school principals with the patterns produced by other sample populations, to determine relationships that exist between principal personality and teacher ratings of principal effectiveness, and to study relationships that exist between principal personality and school organizational climate.

School organizational climate variables were measured by the responses of 1,552 principals and teachers in Alberta schools to the Organizational Climate Description Questionnaire. The personality of the principal was measured by the responses of one hundred sixty-four principals to the Myers-Briggs Type Indicator. The measure of principal effectiveness was based on the responses of teachers to a single question, appended to the Organizational Climate Description Questionnaire, asking for a global rating of effectiveness on a six-point scale.

Two hypotheses were tested in connection with personality patterns. A comparison of the patterns produced by the principals taking part in this study and those taking part in an earlier study utilizing the same instrument indicated that the instrument produced very similar patterns with the two samples of principals. A comparison of the personality-preference patterns produced by principals and industry-hired college graduates indicated that the instrument was able to distinguish effectively between the two vocational groups.

Three hypotheses, based on different approaches to the use of the

Myers-Briggs Type Indicator, were tested in an attempt to determine relationships between principal personality and principal effectiveness. In each case, the results indicated that no relationships exist between principal personality characteristics and the global rating of effectiveness given principals by their staffs.

Five hypotheses were tested in an attempt to determine relationships between principal personality and school organizational climate. The Organizational Climate Description Questionnaire contains eight subtests. Four of the subtests refer to the behavior of the principal, and four refer to the behavior of the staff as a group. A profile for each school is determined by the scores on these subtests. By comparing the school profile to prototypic profiles, one of six organizational climates can be assigned to the school under review. The Myers-Briggs Type Indicator is comprised of separate indices for determining each of four basic preferences which structure the individual's personality. Personality type is determined by combining the four basic preferences. No overall relationship was established between principal personality type and school organizational climate. A number of relationships were established, however, between personality preferences and dimensions of organizational climate--particularly those dimensions concerned with the behavior of the principal. In each case the indicated relationships took the direction that would be expected in terms of the meanings of the concepts under study.

ACKNOWLEDGEMENTS

The writer wishes to express his thanks to his advisor, Dr. J. H. M. Andrews, and to the other members of his thesis committee, Dr. E. Miklos, and Dr. W. H. Worth, for their guidance, interest and encouragement while this study was being conducted and while the manuscript was being prepared.

Special appreciation is gratefully expressed to Dr. Andrews, who made the findings from his study of school organizational climate available for use with this study.

The writer is also deeply indebted to the principals and staffs of schools throughout the Province of Alberta who gave of their valuable time in order to respond to the questionnaires used in connection with this study.

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CHAPTER I

DEFINITION AND DISCUSSION OF THE PROBLEM

I. THE PROBLEM

The purposes of this study were to determine the pattern of personality types found among school principals and to compare this pattern with the patterns produced by other sample populations, to determine relationships that exist between principal personality and teacher ratings of principal effectiveness, and to determine relationships that exist between principal personality and school organizational climate.

It has long been recognized by writers in the field of educational administration that the school principalship is a strategic position. Fisk[1] for example, states:

> 'As is the principal, so is the school' is a timeworn public school cliche. It probably stems from the public and professional recognition of the crucial position of the school administrator in setting the tone of the school. While its authoritarian overtones may be criticized in a time when we stress democratic leader behavior, the truth of the statement should be apparent even in the most democratic school. Whether by precept or example, by overt act or implicit attitude, the influence of the administrator on the character and quality of the program is pervasive.

Rapid changes in society, mounting school enrollments, steadily

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[1]Robert S. Fisk, "The Task of Educational Administration," as found in Roald F. Campbell and Russell T. Gregg (editors), Administrative Behavior in Education (New York: Harper and Brothers, 1957), pp. 217-218.

expanding knowledge and broadening interpretations of the principal's role have made the school administrator's task even more complex and demanding today than in years past. As a consequence, the problems associated with the selection and training of principals have received added attention in recent years.

Administrator recruitment programs have long been handicapped by a lack of adequate understanding of the personal qualities of effective educational leaders. It has been the practice to select principals from the teaching ranks using criteria such as interest in administration, success as a teacher, academic achievement, willingness to assume extra duties, and ability to get along with others as the basis for selection. Judgments have often been based on subjective evaluations by supraordinates. Those chosen as principals have not always proven successful as administrators.

In order to assure competent leadership in our schools more needs to be known about the nature of the relationships between certain patterns of leadership behavior, and the behavior of the groups operating within these patterns. If we are to improve our ability to predict the results of placing a particular man in a particular administrative position we must define and measure more accurately the basic personality variables which presumably influence or organize patterns of leadership behavior.

In a recent exploratory study, Von Fange,[2] using a new personality

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[2]Erich A. Von Fange, "Implications for School Administration of the Personality Structure of Educational Personnel" (unpublished Doctoral thesis, The University of Alberta, 1961).

instrument, the Myers-Briggs Type Indicator, henceforth to be referred to as the MBTI, found that the pattern of personality types found among school principals differed from that of the general population. He found also that a large proportion of the principals fell into relatively few types. These findings indicated that the MBTI might be useful in further research with educational administrators, and suggested some possibilities for such research. First, a replication of that portion of the Von Fange study that dealt with school principals should help to determine the reliability of the instrument and would assist in determining whether or not the findings held only for a particular sample of principals, because of some unidentified conditions that characterized that study. Second, the personality differences found using the MBTI would take on added significance if relationships could be established between the personality variables and some measures of principal and staff behavior. Von Fange[3] suggested further research of this kind in his conclusions. He stated:

> The test instrument demonstrated powers of discrimination in a plausible manner, and further research with the instrument appears to be justified in the attempt to relate personality variables with variables of significance to educational administration.

Halpin and Croft[4] have recently developed an instrument called the Organizational Climate Description Questionnaire, henceforth to be referred to as the OCDQ. This instrument provides a measure of eight dimensions of organizational climate. Four of these dimensions are

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[3] *Ibid.*, p. 162.

[4] Andrew W. Halpin and Don B. Croft, *The Organizational Climate of Schools* (Chicago: Midwest Administration Center, The University of Chicago, 1963).

associated with the behavior of the principal. The remaining four are measures of the behavior of the staff as a group. These eight measures are combined to produce profiles of organizational climate. In this study an attempt was made to determine relationships among the measures provided by the OCDQ, measures of personality variables provided by the MBTI, and a measure of principal effectiveness.

The study was designed to serve three purposes. First, both the OCDQ and the MBTI are recently developed instruments. The study was carried out to assist in the determination of the validity and usefulness of the new instruments. Second, through a replication of a portion of the Von Fange[5] study, it was hoped that confidence in the findings concerning school principals could be developed in order that the usefulness of the MBTI in studies of personality patterns of school administrators could be more firmly established. Third, the study was carried out in an effort to increase understanding of the relationships among principal personality, principal behavior, and the behavior of the school staff as a group.

Sub-Problems

In order that the major problems could be defined more clearly they were broken down into a number of sub-problems.

1. Can the sample of male school principals used in this study be distinguished as a group on the basis of the deviation of personality pattern from the sample of male principals used in the Von Fange[6] study?

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[5]Von Fange, op. cit. [6]Ibid.

2. Can male school principals be distinguished as a group on the basis of the deviation of personality pattern from a group of male college graduates hired by industry?
3. What relationships, if any, exist between the ratings of effectiveness given principals by their staffs and the principals' continuous scores on each index of personality?
4. What differences, if any, occur between the ratings of effectiveness given principals who fall into opposite preference categories when each index of personality is dichotomized?
5. What differences, if any, occur between the ratings of effectiveness given principals who are classified into different personality types?
6. What relationships, if any, exist between the personality types of principals and the organizational climates of their schools?
7. What relationships, if any, exist between the school scores on the eight dimensions of organizational climate and the continuous scores produced by the principals on the four indices of personality?
8. What differences in scores, if any, on each of the eight dimensions of organizational climate, occur between schools whose principals fall into opposite preference categories when each index of personality is dichotomized?
9. What differences in scores, if any, on each of the eight dimensions of organizational climate, occur between schools whose principals fall into different personality types?
10. What differences in scores, if any, on each of the eight

dimensions of organizational climate, occur between schools categorized by combining in pairs their principals' preferences on each index of personality?

II. ASSUMPTIONS

1. It was assumed that the responses to the items in the MBTI and the OCDQ, and the responses to the questionnaire appended to the OCDQ were factually correct and given in good faith.
2. It was assumed that the personality variables measured by the MBTI and the dimensions of school organizational climate measured by the OCDQ were relatively stable for a particular individual or a particular school situation.
3. The climate of each of the schools in this study was determined by comparing the schools' subtest scores with each of six standard profiles of such scores, originally determined using a non-random sample of seventy-one elementary schools in the United States. In making these comparisons it was assumed that the distribution of subtest scores from which the profiles were originally developed was similar to the distribution that would be obtained from a representative sample of schools containing grades one to twelve.
4. The sample used in this study is an accidental sample. In using statistical tests of significance to draw conclusions concerning the population it was assumed that the characteristics of the population elements in the sample which contributed to the ease of access for purposes of this study were

uncorrelated with the relationships under study.[7]

5. It was assumed for purposes of the statistical analyses that the measurement scales used in the instruments were at least interval scales.

III. DELIMITATIONS

1. The study was confined to one hundred sixty-five elementary, junior high, and senior high schools in the Province of Alberta.
2. Measures of personality and school organizational climate were those obtained from the use of the MBTI and the OCDQ respectively.

IV. LIMITATIONS

1. The instruments used to measure principal personality and the organizational climate of schools were both relatively new, and as a result, had not been validated extensively against other criteria. This limitation applied particularly to the OCDQ.
2. The literature on leadership reported in section VI of this chapter emphasizes the interaction between the personality of the leader and the social situation in which the leader functions. In order to study relationships between personality variables and performance variables, therefore, it is advisable to maintain a situation as standard as possible. While there

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[7]Claire Selltiz and others, Research Methods in Social Relations (New York: Holt, Rinehart and Winston, Inc., 1963), p. 542.

are, no doubt, many similarities in the situations in which the principals involved in this study operated, it seems probable that more significant relationships among the variables might have been determined had it been possible to control the situational factors more completely.

V. DEFINITION OF TERMS

Personality is defined by the particular concepts which are employed in the Jungian theory of personality. It consists of the descriptive terms which are used to describe the individual being studied according to the dimensions which occupy a central position within the theory.

Personality type refers to any one of the theoretical personality structure patterns as measured by the Myers-Briggs Type Indicator.

Personality index refers to any one of the following elements of the Jungian theory of personality: extraversion-introversion (EI), judgment-perception (JP), sensation-intuition (SN), thinking-feeling (TF).

Extraversion vs. Introversion (EI). Extraversion refers to an attitude in which one's main points of reference are external, centered in the outer world of people and things. Introversion refers to an attitude in which one's main points of reference are internal.

Judgment vs. Perception (JP). Judgment is defined as coming to a conclusion about something. Perception is defined as becoming aware of something.

Sensation vs. Intuition (SN). Sensation is the direct awareness of something by way of one or more of the senses. Intuition is indirect perception by way of the unconscious, accompanied by ideas or associations which the unconscious adds to the sensations from outside the organism.

Thinking vs. Feeling (TF). Thinking is a logical process, aimed at an impersonal finding of fact. Feeling is a process of appreciation bestowing personal and subjective values upon elements of a situation.

Organizational Climate refers to the social interaction between the principal and the teachers as measured by the OCDQ.

Dimensions of Organizational Climate are the following eight dimensions of the OCDQ:

1. Disengagement refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through motions," a group that is "not in gear" with respect to the task at hand. It corresponds to the more general concept of anomie as first described by Durkheim. In short, this subtest focusses upon the teachers' behavior in a task-oriented situation.

2. Hindrance refers to the teachers' feeling that the principal burdens them with routine duties, committee demands and other requirements which the teachers construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitaing their work.

3. Esprit refers to "morale." The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.

4. Intimacy refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction which is not necessarily associated with task-accomplishment.

5. Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; nomothetic rather than idiosyncratic. To maintain this style, he keeps himself--at least, "emotionally"--at a distance from his staff.

6. Production Emphasis refers to behavior by the principal which is characterized by close supervision of the staff. He is highly directive, and plays the role of a "straw boss." His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.

7. Thrust refers to behavior by the principal which is characterized by his evident effort in trying to "move the organization." "Thrust" behavior is marked not by close supervision, but by the principal's attempt to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willingly gives of himself, his behavior, through starkly task-oriented, is nonetheless viewed favorably by the teachers.

8. Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanly," to try

to do a little something extra for them in human terms.

VI. RELATED LITERATURE

The purpose of this section is to present concepts and reviews of studies that appeared in the literature concerning relationships among leader personality, leadership behavior and group characteristics. Since both instruments used in this study, and indeed, the concepts underlying these instruments, are new, few studies testing relationships among the particular variables utilized in the study have been reported. It is not intended, therefore, that this review of literature should clearly define the direction of research. It is, rather, an attempt to indicate in broad outline the background from which this study emerged.

The section is in two parts. The first presents literature related to personality variables in leadership. The other reviews literature associated with concepts included under the term "organizational climate." It presents a brief survey of attempts to describe leader behavior, group characteristics, and the interaction between leader and group.

Literature Related to Personality Variables in Leadership

The focus of this study is on personality traits that in part purport to organize the patterns of behavior of school administrators. A personality trait has been defined as ". . .some consistent quality of behavior. . .which characterizes the individual in a wide range of

his activities and is fairly consistent over a period of time."[8]

Early studies of leadership were based on a theory that "looks upon leadership as a unitary trait that will characterize leaders wherever they may be found. It is necessary for this theory that all kinds of leaders in all kinds of situations and cultures reveal this trait and that only leaders should do so."[9] No single trait or constellation of traits has been found to characterize all leaders. The traits approach, although it did produce some interesting results,[10] and clarified the basic problems involved in the study of leader behavior, is generally recognized today as naive and inadequate. Sanford[11] concluded after a review of studies using this approach that:

> (a) There are either no general leadership traits or, if they do exist, they are not to be described in any of our familiar psychological or common sense terms.
>
> (b) In a specific situation leaders do have traits that set them apart from their followers but what traits set what leaders apart from what followers will vary from situation to situation.

The traits approach served only to indicate the complexity of

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[8] R. S. Woodworth and D. G. Marquis, Psychology (New York: Holt, Rinehart and Winston, 1948), p. 89, citing Fred E. Fiedler, "Leadership and Leadership Effectiveness Traits: A Reconceptualization of the Leadership Trait Problem," as found in E. P. Hollander and Raymond G. Hunt, Current Perspectives in Social Psychology (New York: Oxford University Press, 1963), p. 481.

[9] Cecil A. Gibb, "Leadership," Handbook of Social Psychology (Vol. II, Chapter 24, Cambridge, Mass.: Addison-Wesley Publishing Company, Inc., 1954), p. 913.

[10] Ibid., pp. 884-889.

[11] Fillmore H. Sanford, "Research on Military Leadership," Psychology in the World Emergency (Pittsburg, Penn.: University of Pittsburg Press, 1962), cited in Andrew W. Halpin, The Leadership Behavior of School Superintendents (Chicago: Midwest Administration Center, University of Chicago, 1959), p. 10.

leadership behavior and the difficulty of isolating specific factors that determine it. As it became obvious that this approach was sterile, the emphasis switched to the situational approach. Bavelas[12] describes this approach as follows:

> The case for the situational approach to leadership derives its strength from this fact: while organizations in general may exhibit broad similarities of structure and function, they also, in particular show strong elements of uniqueness.
>
> . . . . . .
>
> To put it another way, when specific situational patterns are different from organization to organization, one cannot say what personal traits will lead to acknowledged leadership. Instead one must try to define the leadership functions that must be performed in those situations and regard as leadership those acts which perform them. This point of view suggests that almost any member of the group may become its leader. . . .

More recent theory bridges the trait and situational approaches by suggesting that leadership is a function of personality, and of the social situation, and of these two in interaction. This point of view is referred to as the interactional theory. It integrates such major variables as the personality of the leader, the attitudes and needs of the followers, the structure of interpersonal relations and the syntality of the groups, and the situation as determined by the physical setting, nature of the task, etc.[13]

A theoretical framework developed by Getzels and Guba[14] to assist in the analysis of social behavior supports this point of view. In this

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[12]Alex Bavelas, "Leadership: Man and Function," as found in Hollander and Hunt, op. cit., pp. 476-477.

[13]Gibb, op. cit., p. 914.

[14]J. W. Getzels, "Administration as a Social Process," as found in Andrew W. Halpin (editor), Administrative Theory in Education (Chicago: Midwest Administration Center, University of Chicago, 1958), pp. 150-165.

development a social system is represented as being composed of two classes of phenomena which are simultaneously, independent conceptually as well as phenomenally interactive. The first class of phenomena is the institutions made up of expectations and roles aimed at meeting the goals of the system. The second class of phenomena is the individuals, each having certain personalities and need-dispositions. The first class of phenomena makes up the nomothetic dimension; the second class makes up the idiographic dimension.

Since the nomothetic and idiographic dimensions inter-penetrate one another, an intermediate dimension is included in the theory. This transactional dimension is a blend of the other two dimensions and is composed of the elements group, climate and intentions. The term transactional is used to communicate the assumption that the processes within a social system may be seen as a dynamic transaction between roles and personality.

The behavior of an individual can be understood only when both the role expectations and the need-dispositions are known. Motives for behavior may be thought of as needs and expectations, the need deriving from personalistic sets and propensities, and the expectations deriving from institutional obligations and requirments.[15]

It will be noted that as the development of leadership theory progressed, the importance of the personal characteristics of the leader were not denied, but as knowledge increased factors outside the

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[15]Robert E. Sweitzer, "An Assessment of Two Theoretical Frameworks," as found in J. A. Culbertson and Stephen P. Hencley (eds.), Educational Research: New Perspectives (Danville, Ill.: The Interstate Printers and Publishers, Inc., 1963), pp. 212-213.

individual came to be recognized as equally important. It has been recognized also that the manner in which these additional factors interact with the personal factors is important. Despite the acknowledged importance of personal factors, and personality factors in particular, studies focusing on them continue to be largely unproductive. Gibb[16] suggests that failure to establish a definite relationship between personality and leadership may be due to one or more of three factors:

> (1) Personality description and measurement themselves are not yet adequate. Reliable means of measuring basic personality dimensions are still needed. It may be that in leadership researches the really significant aspects of personality have not yet been investigated. (2) The groups studied have usually been markedly different from one another and this may have had the effect of concealing a relation between personality and the exercise of leadership within a more homogeneous set of groups or family of situations. (3) Leadership itself is known to be a complex, and probably not consistent pattern of functional roles. There could be a relation between personality and the taking of particular roles which is not reflected in a study relating personality to a variable pattern of roles.

Despite reviews by writers such as Gibb[17] and Stogdill[18] which reveal that studies of the personalities of leaders have failed to find any consistent pattern of traits which characterizes all leaders, researchers have persisted in their attempts to define and measure the elusive personality characteristics which cause some men to emerge as leaders. Recent studies, however, have partially controlled the situations in which leaders operate by concentrating on leadership in specific types of organizations. If we accept that behavior is a

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[16] Gibb, op. cit., p. 889. [17] Ibid., pp. 884-889.

[18] R. M. Stogdill, "Personal Factors Associated with Leadership," Journal of Psychology, XXV (1948), 35-71.

product of the interaction of needs deriving from personalistic sets and expectations deriving from institutional obligations, then under circumstances in which the expectations are relatively stable, the personal qualities of leaders would tend to differentiate them with respect to their leadership behavior.

A number of studies involving the use of psychological tests with educational leaders have been carried out during the past ten years. In 1959 Nunnery[19] reported a rather extensive project conducted by the Department of Educational Administration and Supervision, University of Tennessee, over a period of six years beginning in 1952. The Tennessee Rating Guide was developed for use as a criterion of effectiveness. A variety of standardized psychological tests including the Allport-Vernon Scale of Values, an Attitude Questionnaire, the Cooperative English Test, the Kuder Preference Record, the Miller Analogies Test, the Watson-Glaser Critical Thinking Appraisal, the Edwards Personal Preference Schedule and the Thurstone Temperament Schedule were used in three separate studies. Two of the studies were conducted with Master's students and the third with practicing administrators. The study with practicing administrators led to the conclusion that of the tests used, the Thurstone Temperament Schedule and the Edwards Personal Preference Schedule seemed to be the most promising for differentiating between persons who had been determined to possess different behavioral characteristics by a rating on the Tennessee Rating Guide,

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[19]Michael Y. Nunnery, "How Useful are Standardized Psychological Tests in the Selection of School Administrators?" Educational Administration and Supervision, XL (November, 1959), 349-356.

but the findings in most cases were in conflict with the findings of the earlier studies with Master's students. The staff of the Department of Educational Administration and Supervision, on the basis of the three studies, concluded that "there is no single instrument which can serve as a best predictor of effectiveness as a school administrator."[20]

A study by Moore[21] completed in 1961 made use of some of the same instruments used in the University of Tennessee project. The subjects for the study were 599 administrative candidates who participated in the Stanford testing program during the period from 1954 to 1957. The subjects were divided into a number of sub-groups and their scores on the Miller Analogies Test, the Allport-Vernon-Lindzey Study of Values, the Minnesota Teacher Attitude Inventory, the Public Opinion Questionnaire, and Edwards Personal Preference Schedules were compared.

When the group still being considered for administrative posts was compared with the group who had become administrators, the practicing administrators were found to be less "aggressive," to believe more strongly that a close rapport between teacher and pupil was important, and to be much less prejudiced or authoritarian in the expression of their social values. The group no longer being considered for administrative posts were higher in both "authoritarianism" and "autonomy" than those who became administrators.

An earlier study of the relationships between personality and

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[20] Ibid., p. 355.

[21] Robert A. Moore, "Selecting Administrators Through Testing," Administrator's Notebook, X (April, 1962).

administrative success was carried out by McVey.[22] The study was based on the personality theory of Fromm. This theory describes the personality within four orientations: the Receptive (the individuals' relationships are oriented toward others as contributors to him), the Exploitive (the individual regards others as a means to his limited ends), the Hoarding (the individual is dedicated to the maintenance of the status quo), the Marketing (the individual emphasizes the concept of people, including himself, as exchangeable items in the achievement of organizational goals or objectives). Each orientation has certain modes of expression known as aspects. These aspects manifest themselves in acts or attributes strongly influenced with either productive or unproductive emphasis. The study was conducted using as subjects elementary principals judged to be effective or ineffective by school executives. The successful elementary principals studied in this investigation showed a dominant marketing orientation with production emphasis. The productively influenced aspects appeared almost exclusively among the effective principals. The unproductively influenced aspects appeared almost exclusively among the ineffective principals.

Lipham,[23] in a study conducted under the auspices of the Midwestern Administration Center, attempted to determine the drives, motives and attitudes of principals through the use of a number of tests and an interview with principals from all levels of one city system. The

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[22]Richard C. McVey, "Personality: A Key to Administrative Success," Administrator's Notebook, V (April, 1957).

[23]James M. Lipham, "Personal Variables of Effective Administrators," Administrator's Notebook, IX (September, 1960).

criterion of effectiveness used was a ranking on a five-point scale given by the superintendent of schools and four assistant superintendents. An adjective list, which provided measures of twenty-five personal variables, and the Edwards Personal Preference Schedule, which measured the relative strength of fifteen personal needs, were used to sample overt reactions and public attitudes. A quasi-projective sentence completion test and a two-hour interview were used to determine drives, motives and attitudes of principals. Lipham found marked differences between those principals judged effective and those judged ineffective. The effective principal was inclined to engage in strong purposeful activity, to be concerned with achieving success and positions of higher status, to be able to relate well to others, and to be emotionally stable. The ineffective principal, on the other hand, was described as deliberate and preoccupied with speculative reasoning, as accepting with a servile attitude his present level of achievement and status, as lacking social skills essential for working with adults, as being highly dependent on others for support, and as likely to exhibit strong emotional reactions in upsetting situations.

Personality variables were included as a part of a major study of the administrative performance of elementary school principals undertaken by Hemphill, Griffiths and Fredericksen.[24] Forms A and B of the Sixteen Personality Factor Questionnaire were given. Scores were obtained for

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[24] John K. Hemphill, Daniel E. Griffiths, and Norman Fredericksen, Administrative Performance and Personality: A Study of the Principal in a Simulated Elementary School (New York: Bureau of Publications, Teachers College, Columbia University, 1962).

such dimensions as Friendly vs. Aloof, Emotional Stability vs. Lack of Frustration Tolerance, Dominance vs. Submission and so on. In one part of the study the scores of the principals were compared with scores of 156 American college students with an average age of twenty-one years. The principals were found to be:

> 1. More inclined to be concerned with the subtle and long-term and less quick to the off-hand acceptance of the matter-of-fact and common-sense solution. They may also be expected to be more conscientious and less fond of excitement for its own sake. (Factor F: Enthusiastic vs. Sober).
> 2. Less likely to take a "life-is-serious" attitude, or to find human contacts exhausting and adopt a shy, aloof or withdrawing attitude. (Factor H. Adventurous vs. Shy).
> 3. More trusting and adaptable, less critical, less skeptical, and in general somewhat less tense and more relaxed in their approach to the social environment (Factor L: Suspicious vs. Trusting).
> 4. Somewhat more secure or confident in their handling of environmental problems (Factor O: Anxious Insecurity vs. Placid Self-confidence).
> 5. More persistent and concerned with acting in accordance with a system of values. (Factor Q_3: Will Control and Character of Stability).
> 6. Less tense, more calm and self-assured.
>
> In general these are the differences known from other studies to be characteristic of occupational groups in which normal professional activity calls for a great deal of social interaction and direction or supervision of work of others.[25]

From the responses to a simulated school situation the researchers distilled the unique attributes of eight first-order factors which they called the components of administrative performance in the elementary principalship. Each of the fifteen personality variables was correlated with these eight factors. Of a possible 120 correlations only three were large enough to be considered significant by the authors.[26]

When the unique components of the eight factors were used as criterion measures in another type of analysis certain patterns of

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[25] Ibid., pp. 84-85. [26] Ibid., p. 262.

relationships with personality test scores were obtained. There was, however, no general pattern. Different patterns emerged for different functions. In the words of the authors:

> These illustrations show the impossibility of stating a general formula for the application of personality information; what scores would be considered desirable is a function of the particular situation in the school district.
>
> Personality might make a valuable addition to a battery of tests for selecting principals, providing the school district is able to describe the principal it wants in terms of factors of administrative performance.[27]

The only research reported involving the use of the MBTI with educational administrators is the Von Fange[28] study mentioned in connection with the discussion of the problem. The study analyzed certain implications to educational administration of measurable patterns of personality as found among education students, teachers, and school administrators. The evidence presented indicated that the pattern of personality types characteristic of principals differed significantly from the pattern found in the general population, but did not differ significantly from the pattern produced by male teachers or superintendents. The range of types, however, was smaller with the principal sample than with either of the other two educational samples. A total of 55 per cent of the principals possessed the two preferences, extraversion and judgment, in common. A very large proportion, 92 per cent, of the principals possessed the judgment preference. This preference is related to organizing, planning, and decision-making.

The most common category for principals was the "extraverted-

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[27] *Ibid.*, p. 338. [28] Von Fange, *op. cit.*

thinking" type. This type has been described as follows:[29]

> The extraverted thinker uses his thinking to run as much of the world as may be his to run. He has a high respect for impersonal truth, thought-out plans and orderly efficiency. He is analytic, impersonal, objectively critical, and unlikely to be convinced by anything but reasoning. He organizes facts, situations, and operations well in advance, and makes a systematic effort to reach carefully planned objectives on schedule. He thinks everybody's conduct should be governed by logic, and governs his own that way as far as he can.
>
> He enjoys being an executive, and puts a good deal of himself into such a job. He likes to decide what ought to be done and to give the requisite orders. He abhors confusion, inefficiency, half-way measures, and anything aimless and ineffective. He can be a crisp disciplinarian, and can fire a person who ought to be fired.

This review of the literature concerned with the relationships between personality variables and administrative performance indicates that the study of this area remains in the exploratory stages. The studies have used very different methods and instruments and are based on widely differing rationales and theories of personality. What knowledge the studies have produced is without organization. What is needed, apparently, is a comprehensive theory that will include the major variables in the administrative situation, including the personality of the leader. Such a theoretical formulation is not available. In order to supply facts on which such a theory could be based researchers must continue to try out new instruments and continue attempts to determine relationships among variables which are assumed to influence administrative behavior.

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[29]Isabel Briggs Myers, Manual: The Myers-Briggs Type Indicator (Princeton, N.J.: Educational Testing Service, 1963), p. A-1.

Literature Related to Organizational Climate

The third division of the problem of this study, as described earlier in this chapter, involved relating principal personality to dimensions of school organizational climate. It was the purpose of this portion of the study to take a first step in the direction suggested by Erickson:[30]

> But the basic task of the scholar is to develop ways of differentiating types of administrators and types of situations objectively in terms of relatively comprehensive configurations and to determine through systematic inquiry the nature and consequences of interaction between these types of administrators and situations.

Only that portion of the situation described by the OCDQ was considered in this study. Other important aspects of the situation such as community factors, the central administration, the physical facilities, the students, and local cultural influences were not studied directly.

Organizational climate, as measured by the OCDQ and as defined by Halpin and Croft,[31] refers exclusively to the social interaction between the principal and the teachers--to the "social component" of the organizational climate. These authors suggest that organizational climate can be construed as the organizational "personality" of a school; figuratively, "personality" is to the individual what "climate" is to the organization.[32]

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[30] Donald Erickson, "Selecting School Principals: Some Recent Developments," Administrator's Notebook, XII (November, 1963).

[31] Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963), p. 7.

[32] Ibid., p. 1.

Because the OCDQ is of such recent origin one can find very few references to organizational climate in the literature. The term was used by Argyris[33] to connote a pattern of interaction between three systems of variables: the formal policies, procedures, and positions of the organization, personality factors including individual needs, values and abilities, and the informal variables that have arisen out of the individual's attempts to adjust to the formal organization. These variables interact to form a complex reciprocal network that tends to maintain itself. This homeostatic state was referred to as the "organizational climate." The term as used by Argyris includes much more than the behavior described by the OCDQ, but the concept of a relatively stable balance of interpersonal relationships is similar to the concept developed by Halpin and Croft.

Bavelas[34] described a situation highly related to that associated with the term "organizational climate" as it is used above when he noted:

> It is a matter of common observation that within any normal industrial organization, providing there has been a sufficient past, there will be found patterns of relationships and interaction that are highly predictable and highly repetitive. Some of these reoccurring situations will be unique to that organization. It is this uniqueness that is referred to when one speaks of the "personality" of a company. This is what management has in mind when it selects a new member with an eye to how he will "fit in."

While there are few direct references in the literature to organizational climate, as such, there are a number of concepts closely related to the eight dimensions utilized to describe this climate. Theoretical

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[33]Chris Argyris, "Some Problems in Conceptualizing Climate," Administrative Science Quarterly, II (1958), 501-520.

[34]Bavelas, op. cit., p. 476.

and empirical studies of leadership have shown a remarkable consistency, for example, in describing the responsibilities of the leader to the organization. Two major dimensions of leadership responsibility have emerged from these studies. Barnard[35] has termed these two dimensions organizational "effectiveness" and organizational "efficiency." Cartwright and Zander concluded, "It appears that most group objectives can be subsumed under one of two headings: (a) the achievement of some specific group goal, or (b) the maintenance or strengthening of the group itself."[36] Getzels and Guba[37] refer to two leadership styles: the "nomothetic" style which stresses roles and role-expectations and the "idiographic" style which emphasizes the personal needs of individuals. From the work of the Personnel Research Board at the Ohio State University has emerged the dimensions of Initiating Structure and Consideration. As defined by Halpin,[38] Initiating Structure refers to the leaders behavior in delineating the relationship between himself and members of his work group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure. Consideration refers to behavior indicative of friendship, mutual trust, respect and warmth in the relationship between the leader and the members of his staff.

The sixty-four items of the OCDQ are assigned to eight subtests.

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[35]Chester I. Barnard, The Functions of the Executive (Cambridge: Mass.: Harvard University Press, 1938).

[36]Dorwin Cartwright and Alvin Zander, Group Dynamics, Research and Theory (Evanston, Ill.: Row, Peterson and Co., 1953), p. 541.

[37]J. W. Getzels and E. G. Guba, "Social Behavior and the Administrative Process," The School Review, LXV (Winter, 1957), 436-437.

[38]Andrew W. Halpin, The Leadership Behavior of School Superintendents (Columbus: The University Press, Ohio State University, 1956), p. 4.

Four of these subtests pertain primarily to characteristics of the principal as a leader. An examination of the items included in these subtests suggests that they are testing dimensions closely related in some cases to the two dimensions of leadership behavior referred to above. The dimension, Consideration, is included in descriptions of both leadership behavior and organizational climate. The descriptions of the dimensions are similar in both contexts. The climate subtest, Thrust, also contains a number of items that appear to be closely associated with the Consideration dimension of leader behavior. The items of the remaining two subtests of climate pertaining to characteristics of the principal, Aloofness and Production Emphasis, test leader behavior somewhat related to that referred to in the definition of Initiating Structure. The term Production Emphasis was originally used to describe one of the four factors resulting from a factor analysis of the Leader-Behavior-Description scales devised by Hemphill and his colleagues. This analysis was reported by Halpin and Winer[39] in 1952.

The four subtests of the OCDQ referred to in the paragraph above pertain to characteristics of the principal. The other four pertain primarily to the characteristics of the faculty group *qua* group. One of the first instruments designed to measure group dimensions was developed by Hemphill and Westie.[40] They defined fourteen dimensions and developed

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[39]Andrew W. Halpin and B. J. Winer, *The Leadership Behavior of the Airplane Commander* (Columbus: Ohio State University Research Foundation, 1952).

[40]John K. Hemphill and Charles M. Westie, "The Measurement of Group Dimensions," *Journal of Psychology*, XXIX (1950), 324-342.

scales whereby a group could be described by its members. One of these dimensions, Intimacy, is identical in name and similar in definition to one of the four subtests describing group behavior in the OCDQ. Another dimension described by Hemphill, Viscidity, appears from its definition to bear a strong, but negative relationship with the climate dimension, Disengagement. Viscidity is described as the degree to which members of the group function as a group. It is reflected by absence of dissension and personal conflict among members. Esprit, the third subtest of the OCDQ, pertaining to the group, refers, by definition, to morale. Morale, as a group concept, has received considerable attention in the literature. The fourth group dimension of organizational climate, Hindrance, seems to have no counterpart in the literature concerning leadership and social organizations.

There is evidence that dimensions of leader behavior and group dimensions are interrelated. Morris[41] studied relationships between two dimensions of leadership, Consideration and Initiating Structure and group dimensions as described by Hemphill and Westie.[42] He found in part that:

> Staffs of high-leadership principals are oriented toward goals that are clear and specific to members (high Polarization). Such staffs are composed of teachers who apply a considerable amount of time and effort to group activities both assigned and voluntarily assumed (high participation). In performing these activities staffs with high-leadership principals function as units with a minimum of dissension and personal conflict among members (high viscidity). The staffs, as groups, have primary significance for their members whenever the principal's leadership is

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[41]Derek V. Morris, "Staff Characteristics and Principal Leadership" (unpublished Master's thesis, The University of Alberta, Edmonton, 1961).

[42]Hemphill and Westie, op. cit.

> high, satisfying many needs of the individual staff members and hold significant meaning for the teachers with reference to their central values (high potency).[43]

The term "high-leadership principals" as used in the above quotation refers to those principals whose scores were high on both Consideration and Initiating Structure. Other studies have shown a relationship between leadership behavior and morale (Esprit). Blocker and Richardson[44] after a study of twenty-five years of morale research in education conclude with this statement:

> The administrator appears in study after study as the key person with respect to morale. With virtually the same environmental factors operating, high or low morale can be induced depending upon the behavior pattern of the chief administrator. Morale behavior may provide us with a method of evaluating administrative behavior, a need that has long been evident.

Halpin,[45] in his paradigm for research on administrative behavior, suggests that researchers in administration are not interested in the general effects of variables including personality variables, "but in their focal effect upon those facets of his behavior that are related to pertinent criteria of effectiveness."[46] He suggests two levels of criteria, intermediate criteria and ultimate criteria. Intermediate criteria usually take the form of ratings of effectiveness; utlimate criteria include changes in both organization maintenance and organization achievement.

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[43]Morris, op. cit., pp. 75-76.

[44]Clyde Blocker and Richard C. Richardson, "Twenty-Five Years of Morale Research: A Critical Review," Journal of Educational Sociology, XXXVI (January, 1963), 208.

[45]Andrew W. Halpin, "A Paradigm for Research in Administrative Behavior" as found in R. F. Campbell and R. T. Gregg (eds.), Administrative Behavior in Education (New York: Harper & Brothers, 1957), pp. 155-159.

[46]Ibid., p. 185

The present study attempts in part to relate personality variables to certain descriptions of principal behavior. It has been suggested above that the subtests of the OCDQ which describe leader behavior are somewhat analogous to Consideration and Initiating Structure. As shown above, relationships have been demonstrated to exist between these two dimensions of leadership and variables associated with one of the ultimate criteria, organization maintenance.

Relationships have also been established between dimensions of leadership and the other ultimate criterion, organization achievement. One measure of organization achievement in schools is pupil growth in subject matter. Greenfield[47] found that Consideration and Initiating Structure, as measured with teachers as subjects, were significantly related to pupil growth. A more recent study by Feldvebel[48] found a significant relationship between principal leader behavior, as measured by the subtests Consideration and Production Emphasis on the OCDQ, and pupil achievement.

This evidence suggests that one important condition laid down by Halpin[49] in his paradigm has been met. He says with reference to the variables in Panel III, which include personality variables:

> It is possible to design studies in which administrator variables (Panel II) will be predicted from the variables in Panel III. . . .

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[47] T. B. Greenfield, "Teacher Leader Behavior and Its Relation to Effectiveness as Measured by Pupil Growth" (unpublished Master's thesis, The University of Alberta, Edmonton, 1961).

[48] A. M. Feldvebel, "Organizational Climate, Social Class, and Educational Output," Administrator's Notebook, XII (April, 1964).

[49] Halpin, op. cit., p. 191.

> Studies of this kind provide useful information, but this information is of limited value unless one proceeds to the next step of determining the relationship between the behavior predicted in panel II (from the variables in panel III) and the criteria in Panel IV.

Dimensions of leader behavior, to which an attempt has been made in this study to relate personality variables, have been shown by other studies to be related to both organizational maintenance and organization achievement.

Summary

Studies of personality variables carried out with samples of educational administrators have, in general, been unproductive. Most of these studies have attempted to relate personality variables directly to some criterion of effectiveness. The criteria used have ranged from global ratings of effectiveness by some person or persons presumably familiar with the work of the administrator, to refined rating scales which permit ratings of different facets of the administrative task. The results of studies with this type of design have been inconclusive. What knowledge has been gleaned is piecemeal and unorganized. Studies designed to determine relationships between leader behavior and certain criteria of effectiveness, on the other hand, have met with some success.

In the light of these facts, it would seem advisable in carrying out studies of the personality of school administrators, to attempt to relate measures of personality variables not only to traditional ratings of effectiveness, but also to measures of leader behavior and the results of the interaction between the principal and his immediate work group. Only after relationships of the latter kind have been clearly established

can we expect to predict with any accuracy the results of placing a principal with a particular personality pattern in a particular situation.

CHAPTER II

INSTRUMENTATION AND METHODOLOGY

I. INSTRUMENTATION

The data necessary to test the hypotheses of the study were obtained by the use of three instruments: the Myers-Briggs Type Indicator, the Organizational Climate Description Questionnaire, and a questionnaire appended to the OCDQ. These instruments are described below.

The Myers-Briggs Type Indicator (see Appendix)

The Myers-Briggs Type Indicator is a new personality instrument released for general use only within the last two years. A full description of the purpose of the instrument, directions for administration and scoring, summaries of a number of studies in which it has been used, and the theory on which the Indicator is based are given in the Manual.[1]

The description following is quoted directly from that source:

> The purpose of the Indicator is to implement Jung's theory of type (1923). The gist of the theory is that much apparently random variation in human behavior is actually quite orderly and consistent, being due to certain basic differences in the way people prefer to use perception and judgment.
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> "Perception" is here understood to include the processes of becoming-aware,--of things or people or occurrences or ideas. "Judgment" is understood to include the processes of coming-to-conclusions about what has been perceived. If people differ

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[1] Isabel Briggs Myers, Manual: The Myers-Briggs Type Indicator (Princeton, N.J.: Educational Testing Service, 1963).

systematically in what they perceive and the conclusions they come to, they may as a result show corresponding differences in their reactions, in their interests, values, needs and motivations, in what they do best and in what they like best to do.

Adopting this working hypothesis, the Indicator aims to ascertain, from self-report of easily reported reactions, people's basic preferences in regard to perception and judgment, so that the effects of the preferences and their combinations may be established by research and put to practical use.

The Indicator contains separate indices for determining each of the four basic preferences which, under this theory, structure the individual's personality. The EI index is designed to reflect whether the person is an extravert or an introvert, in the sense intended by Jung, who coined the terms. The extravert is oriented primarily to the outer world, and thus tends to focus his perception and judgment upon people and things. The introvert is oriented primarily to the inner world postulated in Jungian theory, and thus tends to focus his perception and judgment upon concepts and ideas.

The SN index is designed to reflect the person's preference as between two opposite ways of perceiving, i.e., whether he relies primarily on the familiar process of sensing, by which he is made aware of things directly through one or another of his five senses, or primarily on the less obvious process of intuition, which is understood as indirect perception by way of the unconscious, with the emphasis on ideas or associations which the unconscious tacks on to the outside things perceived.

The TF index is designed to reflect the person's preference as between two opposite ways of judging,i.e. whether he relies primarily upon thinking, which discriminates impersonally between true and false, or primarily upon feeling, which discriminates between valued and not-valued.

The JP index is designed to reflect whether the person relies primarily upon a judging process (T or F) or upon a perceptive process (S or N) in his dealings with the outer world, that is, in the extraverted part of his life.

The main purpose of the Indicator is to ascertain a person's basic preferences. EI, SN, TF, and JP are therefore indices designed to point one way or the other, rather than scales designed to measure traits. What each is intended to reflect is a habitual choice between opposites, analogous to right- or left-handedness. Thus EI means E or I, rather than E <u>to</u> I.

The items of each index offer "forced" choices involving the preference at issue. Responses pointing in opposite directions bear separate weights of 0, 1 or 2, enabling the evidence in each direction to be separately summed. This device permits (a) control of the effect of omissions, and (b) an item-by-item correction for social desirability, undistorted by omissions, which is described in the section on construction of the Indicator, in Part Three.

Persons with more points for E than for I are classed as extraverts and are said to have E scores, as E7, E113, etc. Those with

more points for I than for E are classed as introverts and are said to have I scores, as I7, I13, etc. Since the EI "score" is based on the difference between the points for E and the points for I, any given person may have either an E score or an I score, but not both.

The letter is considered the most important part of the score, as indicating which of the opposite sides of his nature the person prefers to use, and, presumably, has developed--or can develop--to a higher degree. For instance, E suggests that he enjoys extraverting more than he enjoys introverting, has therefore given his extravert side considerably more practice, is likely to be better at activities involving extraversion, and will probably find a vocation requiring extraversion most satisfying as a life work. The letters from all four scores, each with corresponding implications, make up the type formula, as ENFP, which describes the type.

The numerical portion of a score shows how strongly the preference is reported, which is not necessarily the same thing as how strongly it is felt.

The division of each index into two separate scales emphasizes the respectful recognition which type theory accords to opposite kinds of people. Each person is classified in positive terms, by what he likes, not what he lacks. The theory attaches no *a priori* value judgment to one preference as compared with another, but considers each one valuable and at times indispensable in its own field.

Continuous scores for each index can be obtained for statistical purposes by adding 100 to an I, N, F, or P, preference score and subtracting 100 from an E, S, T, or J, preference score. This places each individual's score on a continuum for each index, with the smallest numbers representing strong I, N, F, or P, preferences and the largest numbers representing strong E, S, T, or J, preferences.

Siegel[2] suggests that the Indicator may be viewed from three perspectives:

> First, it contains four scales yielding continuous scores which the user can empirically validate. This treatment of the Indicator is contrary to the theory underlying its development. Nevertheless it is precisely this treatment that was used to estimate the reliabilities and certain of the validities offered in support of the instrument. However, normative data for the four scales are not

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[2]Laurence Siegel, "Test Reviews," *Journal of Counselling Psychology*, X (Fall, 1963), 308.

presented.

An alternative is to treat the Indicator as yielding eight continuous scores--one for each aspect of the dichotomy embodied within each index. Although limited percentile norms are provided for these eight scores, reliability data are not presented for them. Since these scales are only half as long as those for which reliability was estimated, there is some serious question about the utility of these percentile conversions for individual guidance.

Finally, the importance of the Indicator scores can be minimized in favor of giving primary consideration to the type designations derived from these scores. The Manual states that this interpretation is the most legitimate one. The promise of the indicator so interpreted would seem to depend more heavily upon clinical or intuitive validation than upon the more usual kind of psychometric validation.

The first and third of these approaches to the use of the Indicator have been utilized in the present study.

Commenting with respect to reliability and validity of the instrument, Siegel[3] states:

Leaving aside the question of the dichotomous nature of the indices and treating each as a continuous scale makes it possible to conduct the traditional kinds of reliability and validity studies. Corrected split-half reliabilities are on the order generally obtained from self-report inventories; these range from with few exceptions between .75 - .85.

Numerous correlations with other instruments including the strong, Allport-Vernon-Lindzey, and Edwards are reported and discussed in the Manual. A wealth of nontest criteria including job turnover and academic performance was also used to validate the Indicator.

Intercorrelations among the continuous scores indicate that three of the four indices are virtually independent of each other. The Manual[4] reports that for various academic populations the median absolute intercorrelations for the EI, SN, and TF, indices is .03 for males and .06 for females. The JP index, however, correlates quite consistently with SN and TF. Correlations with SN are small, ranging from .100 to .18 for males and from -.02 to .20 for females. Correlations with SN are

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[3] Ibid., p. 307. [4] Myers, op. cit., p. 11.

consistent and relatively large, ranging from .26 to .33 for males and from .33 to .47 for females. Intuitives are more frequent among perceptives than would be expected by chance.

The Organizational Climate Description Questionnaire (see Appendix)

The OCDQ is a very new instrument. The monograph[5] describing the development of the instrument was first published in August, 1963. Only one study[6] utilizing the Questionnaire has been reported to date.

The OCDQ contains sixty-four likert-type items. The respondent indicates to what extent the behavior described by each item characterizes his school. The items have been assigned to eight subtests which were delineated by factor-analytic methods. Four of these subtests, Disengagement, Hindrance, Esprit and Intimacy, pertain primarily to characteristics of the group. The other four, Aloofness, Production Emphasis, Thrust, and Consideration, pertain to characteristics of the principal as a leader. The behavior tapped by each of these subtests has been described in Chapter I in the section dealing with the definition of terms. To compute each respondents' scores for the eight subtests, the mean of the item scores is computed. To compute the school's subtest scores the mean scores for all respondents in that school on each subtest is calculated. The raw scores are then standardized across the sample of schools to produce scores with a mean of fifty and a standard deviation of ten.

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[5] A. W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, The University of Chicago, 1963).

[6] A. M. Feldvebel, "Organizational Climate, Social Class and Educational Output," Administrator's Notebook, XII (April, 1964).

From the schools' scores on these eight subtests profiles depicting the school's organizational climates can be constructed. In order to categorize these profiles each is compared in turn with each of six prototypic profiles, developed from factor analysis of the profiles for seventy-one elementary schools. The sum of the absolute differences between each subtest score in a school's profile and the corresponding score in each prototypic profile produces a "profile-similarity score." The lowest "profile-similarity score" indicates the greatest degree of similarity between the school's profile and one of the prototypic profiles. A school is assigned to the category of organizational climate defined by that prototypic profile for which its "profile-similarity score" is lowest.

The organizational climates represented by the six prototypic profiles have been ranked according to their score on Esprit and have been assigned names. Brief descriptions of each climate, based on those presented in the monograph,[7] follow.

The Open Climate--is represented by a profile having high scores for Esprit, Thrust, and Consideration, low scores for Disengagement, Hindrance, Production Emphasis, and Aloofness, and an average score for Intimacy. The organization described by an open climate is one in which leadership acts emerge easily from both the group and the leader. The members are preoccupied disproportionately with neither task achievement nor social-needs satisfaction.

The Autonomous Climate--is characterized by low scores for

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[7]Halpin and Croft, op. cit., pp. 60-67.

Disengagement, Hindrance, and Production Emphasis, an average score for Consideration, relatively high scores for Esprit, Intimacy and Thrust, and a high score for Aloofness. Leadership acts emerge primarily from the group. The leader exerts little control over the group members. High Esprit results primarily from social-needs satisfaction, although satisfaction from task achievement is also present.

The Controlled Climate--is marked by high scores for Hindrance, and Production Emphasis and low scores for Disengagement, Intimacy and Consideration. The Esprit score is slightly above-average, as is the score for Aloofness. The principal receives an average score for Thrust. The school with a controlled climate is described as impersonal and highly task-oriented. The Esprit score reflects achievement satisfaction at some expense to social-needs satisfaction.

The Familiar Climate-- is represented by a profile having high scores for Intimacy and Consideration, and low scores for Production Emphasis, Aloofness and Hindrance. There is average Esprit and the principal is assigned a score above-average for Thrust. The group score on Disengagement is high. The situation in a school with this climate is highly personal, but uncontrolled. Esprit is average, but one-sided, because it stems almost entirely from satisfaction of social needs. Members secure little satisfaction from task achievement.

The Paternal Climate--is characterized by high Disengagement and Production Emphasis combined with low Esprit, Intimacy and Hindrance, and Aloofness. The principal is relatively high on Thrust and Consideration. In this situation the principal constrains the emergence of leadership acts from the group and attempts to initiate most of these acts himself.

Little satisfaction is obtained from either achievement or social needs and, as a result, morale is low.

The Closed Climate--is marked by high scores for Hindrance, Disengagement, Production Emphasis and Aloofness, and low scores for Esprit, Thrust and Consideration. The score for Intimacy is average. There is a high degree of apathy on the part of all members of the organization. The principal is aloof. He emphasizes production, and sets up rules and regulations, but he does not motivate by setting a good example himself. Esprit is very low, because group members secure neither social-needs satisfaction nor satisfaction that comes from task achievement.

The discussion of the internal properties of the OCDQ in the monograph indicates that there are a number of rather high intercorrelations among the eight subtests. Table I is reproduced directly from the monograph.[8]

TABLE I

CORRELATIONS BETWEEN EIGHT SUBTEST SCORES OF THE OCDQ, FORM IV, 64 ITEMS

	OCDQ SUBTEST	I	II	III	IV	V	VI	VII	VIII
Teachers' Behavior	1. Disengagement	1.00	.27	-.36	.00	.18	.17	-.22	.04
	2. Hindrance		1.00	-.32	-.07	.15	.08	-.25	-.15
	3. Esprit			1.00	.31	-.09	.12	.60	.42
	4. Intimacy				1.00	-.06	.11	.18	.31
Principal Behavior	5. Aloofness					1.00	.13	-.07	-.10
	6. Production Emphasis						1.00	.17	.19
	7. Thrust							1.00	.49
	8. Consideration								1.00

[8] Ibid., p. 38.

The Appended Questionnaire

Eleven questions were appended to the printed forms of the OCDQ used in a study of organizational climate in Alberta.[9] These questions provided information concerning the size and types of schools taking part in the study, biographical information for teachers and principals and ratings of teacher satisfaction and school and principal effectiveness.

II. METHODOLOGY

The Samples

The data relating to principal personality were gathered from one hundred sixty-four principals of elementary, junior high and senior high schools in the Province of Alberta during February and March, 1964. The principals were among those who had registered for conferences on school organizational climate, sponsored jointly by the Council on School Administration and the Department of Educational Administration, and held in the cities of Calgary and Edmonton in March, 1964.

The data relating to school organizational climate were gathered and processed in connection with a study of organizational climate in Alberta presently being conducted by Andrews, and sponsored jointly by the Council on School Administration, the Department of Educational Administration and the Alberta Advisory Committee on Educational

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[9]This study is presently being conducted by Dr. J. H. M. Andrews, Department of Educational Administration, University of Alberta. It is sponsored jointly by the Council on School Administration, and the Alberta Advisory Committee on Educational Research.

Research. These data were obtained from one hundred seventy-one schools whose principals had taken part in the conferences mentioned above in connection with the personality data. The OCDQ and the appended questionnaire were completed by the principal and nine teachers in each school, except in the cases where the instructional staff of the school numbered less than ten. In these cases the sample for the school consisted of all the teachers and the principal. The questionnaire of any respondent who failed to answer three or more questions was rejected. A more complete description of the samples is given in Chapter III.

Collection of Data

The data concerning personality and organizational climate were obtained simultaneously by mailing a package containing instructions, one copy of the MBTI, ten copies of the OCDQ, and mailing envelopes, to each of the principals immediately following his registration for one of the conferences on school organizational climate mentioned above.

Principals were asked to complete the MBTI, using the answer sheet provided, and one copy of the OCDQ. They were asked to place their names and some biographical data on the answer sheet of the MBTI. Assurance was given that no one but the investigator would have access to the answer sheets until the names had been replaced by a code number designating the school. Only the name of the school was entered on the OCDQ booklet. No time limit was specified for the completion of either instrument. The completed forms were sealed by the respondents in separate mailing envelopes.

The principal was instructed to appoint a coordinator under whose

direction nine teachers selected at random from the staff would complete the OCDQ. In those schools with fewer than nine teachers, all teachers completed the questionnaire. The coordinator was instructed to allow no consultation among the selected teachers before or during the completion of the questionnaires. In order to preserve completely the anonymity of the respondents, only the name of the school was placed on the booklets, and immediately after completion the booklets were sealed in the envelopes provided. No time limit was set for the completion of the questionnaires. The coordinator was asked to place all the envelopes containing completed instruments, including those of the principal, in a large mailing envelope for return to the investigators. As soon as the OCDQ booklets were received by the investigators, the school name was obliterated and replaced by a code number.

Treatment of Data

The fundamental purposes of this study were to determine the pattern of personality types among principals of schools and to compare this pattern with the pattern of comparable groups, to determine relationships that exist between principal personality variables and teacher ratings of effectiveness, and to determine relationships that exist between principal personality variables and school organizational climate variables.

In Chapter I ten sub-problems were listed to indicate more specifically the direction the investigation would take. For the purposes of this section these sub-problems will be stated in the form of null hypotheses.

Hypotheses Concerning Differences in Patterns of Personality

1. There are no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index of personality, when the samples of principals from the Von Fange[10] study and the present study are compared.

2. There are no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index of personality, when the sample of male principals from the present study is compared with a sample of male college graduates hired by industry.

Hypotheses Concerning Relationships Among Personality Variables and Teacher Ratings of Principal Effectiveness

3. Correlations between the principals' continuous scores on each index of personality and the ratings of effectiveness given principals by their staffs do not differ significantly from zero.

4. There are no significant differences between the mean ratings given by teachers to principals who fall into opposite categories when each of the four indices of personality are dichotomized.

5. There are no significant differences among the median ratings given by teachers to principals who are classified into different personality types.

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[10] Erich A. Von Fange, "Implications for School Administration of the Personality Structure of Educational Personnel" (unpublished Doctoral thesis, The University of Alberta, 1961).

Hypotheses Concerning Relationships Between Principal Personality and School Organizational Climate

6. The climates of schools as determined by comparisons with the Halpin and Croft prototypes are independent of the personality types of principals.

7. The correlations between school scores on the eight subtests of the OCDQ and the continuous scores produced by the principals on the four indices of personality are not significantly different from zero.

8. No significant differences in the mean scores on each of the eight subtests of the OCDQ occur between schools whose principals fall into opposite categories when each index of personality is dichotomized.

9. No significant differences in the median scores on each of the eight subtests of the OCDQ occur between schools whose principals are classified into different personality types.

10. No significant differences in mean scores on each of the eight subtests of the OCDQ occur between schools categorized by combining in pairs their principals' preferences on each index of personality.

In order to test these hypotheses data were obtained from three major sources: from responses to the MBTI, from responses to the OCDQ, and from responses to a question, included in the questionnaire appended to the OCDQ, which asked teachers for a global rating of principal effectiveness.

The MBTI provides four kinds of data: (1) a preference between the two categories when each index of personality is dichotomized; (2) a personality type for each principal produced by combining the preferences from each of the four indices; (3) a strength score for each of the

preferences; and (4) a continuous score for each of the four indices derived from the scores indicating the strength of preference.

The OCDQ provided two kinds of data: (1) a mean standard score for each of the dimensions of organizational climate for each school; and (2) a school climate obtained by comparing the school's profile of dimension scores with a set of six preselected profiles.

The relationships among these data were examined by using a number of statistical procedures to test the null hypotheses listed above. The statistical tests will be discussed in connection with the findings presented in Chapter III.

CHAPTER III

DESCRIPTION OF THE SAMPLES, ANALYSIS OF DATA AND RESULTS

In the previous chapters, the problem was presented and discussed, and the methods and instruments used in the study were described. It is the purpose of this chapter to give a more complete description of the sample based on biographical data obtained from a questionnaire appended to the OCDQ, to describe the methods used in the analysis of the data, and to present the results obtained from testing the ten null hypotheses given in Chapter II.

I. DESCRIPTION OF THE SAMPLES

The samples selected for use in this study were chosen because of their accessibility, and because the conferences on school organizational climate mentioned previously presented an unusual opportunity to receive a high percentage return of completed instruments. There is, therefore, no way to determine whether or not the samples were representative of larger populations. It was hoped that findings from a study using sample populations of this kind might be valuable in determining the direction of more rigorously designed research using more representative samples.

Description of the Sample Used in Analysis of School Organizational Climate

The study of school organizational climate was carried out in one hundred seventy-one schools. Responses to the OCDQ from a total of 1,552

teachers and principals were used in the analysis of school climates. This number remained after the questionnaires from individuals who had failed to respond to three or more items on the OCDQ had been rejected. The respondents from four schools included in the climate study completed instruments to which the questionnaire designed to provide biographical data had not been appended. For this reason the number of persons failing to respond to the items designed to provide biographical data may seem unusually high.

The sample used in the study of school organizational climate consisted of 1,408 teachers and 144 principals. Table II shows the distribution by sex of the sample of teachers and principals used in this study.

TABLE II

DISTRIBUTION BY SEX OF THE SAMPLE OF TEACHERS AND PRINCIPALS USED IN THE ANALYSIS OF SCHOOL ORGANIZATIONAL CLIMATE

Sex	Number of Teachers	Per Cent	Number of Principals	Per Cent	Total
Male	478	36.0	130	90.2	608
Female	850	64.0	14	9.7	864
Total	1328	100.0	144	99.9	1472[a]

[a]Eighty teachers did not respond to this item.

The table indicates that 850, or 64.0 per cent, of the teachers were females, and that 130, or 90.2 per cent of the principals were males. The distribution of principals by sex approximates the distribution of the principal population in Alberta schools having nine or more teachers

in 1958, as reported by Ledgerwood.[1] The population of principals in Alberta at that time was 88.7 per cent male.

Table III shows the distribution by age of the sample of teachers and principals used in the analysis of school organizational climate.

TABLE III

DISTRIBUTION BY AGE OF THE SAMPLE OF TEACHERS AND PRINCIPALS USED IN THE ANALYSIS OF SCHOOL ORGANIZATIONAL CLIMATE

Age (years)	Number of Teachers	Per Cent	Number of Principals	Per Cent	Total	Per Cent
Under 24 years	290	21.4	0	0.0	290	19.3
25 - 29	227	16.8	4	2.8	231	15.4
30 - 34	150	11.1	14	9.7	164	10.9
35 - 39	145	10.7	24	16.7	169	11.3
40 - 44	128	9.4	27	18.8	155	10.3
45 - 49	156	11.5	31	21.5	187	12.5
50 - 54	146	10.8	21	14.6	167	11.1
55 - 59	73	5.4	16	11.1	89	5.9
60 and over	40	2.9	7	4.9	47	3.1
Total	1355	100.0	144	100.1	1499[a]	99.8

[a]Fifty-three teachers did not respond to this item.

The category including those under twenty-four years of age contained the largest proportion of teachers. The next largest frequency was found in the category including those teachers twenty-five to twenty-nine years of age. A total of 49.3 per cent of all teachers in the sample were under thirty-five years of age.

The greatest number of principals fell into the age range from forty-five to forty-nine years. The median age for principals was 45.5

[1]C. Douglas Legerwood, "Some Personal and Professional Characteristics of Alberta School Principals, 1958" (unpublished Master's thesis, The University of Alberta, Edmonton, 1963), p. 18.

years. Ledgerwood[2] found the median age of principals in Alberta schools with nine or more teachers in 1958 to be 45.4 years.

Table IV presents the distribution of total years of teaching experience of the sample of teachers and principals used in the analysis of organizational climate.

TABLE IV

DISTRIBUTION BY TOTAL YEARS OF TEACHING EXPERIENCE OF THE SAMPLE OF TEACHERS AND PRINCIPALS USED IN THE ANALYSIS OF SCHOOL ORGANIZATIONAL CLIMATE

Years of Teaching Experience	Number of Teachers	Per Cent	Number of Principals	Per Cent	Total	Per Cent
1	115	8.5	0	0.0	115	7.7
2	125	9.2	0	0.0	125	8.3
3 - 4	178	13.1	2	1.4	180	12.0
5 - 6	133	9.8	4	2.8	137	9.1
7 - 8	94	6.9	5	3.5	99	6.6
9 - 10	103	7.6	6	4.2	109	7.3
11 - 15	258	19.0	40	28.0	298	19.9
16 - 20	141	10.4	26	18.2	167	11.1
21 years or over	209	15.4	60	42.0	269	17.9
Total	1356	99.9	143[a]	100.1	1499[a]	99.9

[a]Fifty-two teachers and one principal did not respond to this item.

As would be expected, the principals as a group had had considerably more experience than the teacher group. In the teacher group 55.1 per cent had ten years or less teaching experience, while only 11.9 per cent of the principals fell into this category. The median number of years teaching experience for teachers was 9.6 years and for principals

[2]*Ibid.*, p. 20.

was 18.8 years. Ledgerwood[3] found the median years of teaching experience for principals of Alberta school having nine or more teachers to be 21.2 years.

Table V presents the distribution by years of experience in the present school of the sample of teachers and principals used in the analysis of organizational climate. It is significant that 32.6 per cent of

TABLE V

DISTRIBUTION BY YEARS OF EXPERIENCE IN PRESENT SCHOOL OF THE SAMPLE OF TEACHERS AND PRINCIPALS USED IN ANALYSIS OF SCHOOL ORGANIZATIONAL CLIMATE

Years of Experience in Present School	Number of Teachers	Per Cent	Number of Principals	Per Cent	Total	Per Cent
1	442	32.6	20	13.9	462	30.8
2	237	17.5	15	10.4	252	16.8
3 - 4	257	19.0	34	23.6	291	19.4
5 - 6	157	11.6	28	19.4	185	12.3
7 - 8	96	7.1	18	12.5	114	7.6
9 - 10	61	4.5	7	4.9	68	4.5
11 - 15	63	4.6	8	5.6	71	4.7
16 - 20	22	1.6	7	4.9	29	1.9
20 years or over	20	1.5	7	4.9	27	1.8
Total	1355	100.0	144	100.1	1499[a]	99.8

[a]Fifty-three teachers did not respond to this item.

the teachers and 13.9 per cent of the principals had had less than one year of experience in their school before the OCDQ was completed. Slightly more than 50 per cent of the teachers had been in their school for less than two years. Less than four years had been spent in their present school by 47.9 per cent of the principals.

[3]*Ibid.*, p. 26.

Table VI shows the distribution by years of training for salary purposes of the sample of teachers and principals used in the analysis of school organizational climate.

TABLE VI

DISTRIBUTION BY YEARS OF TRAINING FOR SALARY PURPOSES OF THE SAMPLE OF TEACHERS AND PRINCIPALS USED IN ANALYSIS OF SCHOOL ORGANIZATIONAL CLIMATE

Years of Training	Number of Teachers	Per Cent	Number of Principals	Per Cent	Total	Per Cent
1	426	31.5	1	0.7	427	28.6
2	313	23.2	4	2.8	317	21.2
3	155	11.5	11	7.6	166	11.1
4	288	21.3	45	31.3	333	22.3
5	113	8.4	41	28.5	154	10.3
6	56	4.1	42	29.2	98	6.6
Total	1351	100.0	144	100.1	1495[a]	100.1

[a]Fifty-seven teachers did not respond to this item.

The mode for years of training for teachers was one year. Almost 55 per cent of the teachers had two years or fewer of training. The mode for years of training for principals, on the other hand, was four years, and 57.7 per cent of the group had more than four years training. In 1958, the principals of schools in Alberta having more than nine rooms had a smaller proportion, 43.2 per cent, of their group in the categories beyond four years training. Only 11.1 per cent of the principals in the present sample had less than four years training, while 20.6 per cent of the population of Alberta principals in 1958 had less than four years training.[4]

[4]*Ibid.*, p. 22.

The members of the sample were drawn from schools differing widely in type and size. Table VII gives the distribution by number of teachers of schools used in the study of school organizational climate.

TABLE VII

DISTRIBUTION BY NUMBER OF TEACHERS OF SCHOOLS USED IN STUDY OF SCHOOL ORGANIZATIONAL CLIMATE

Number of Teachers	Number of Schools	Per Cent
Fewer than 5	1	0.6
5 - 9	14	8.4
10 - 14	56	33.7
15 - 19	28	16.9
20 - 24	30	18.1
25 - 29	17	10.2
30 - 39	9	5.4
40 - 49	3	1.8
50 or more	8	4.8
Total	166[a]	99.9

[a]Statistics unavailable for five schools.

The largest frequency is found in the category which includes schools with ten to fourteen teachers. Slightly more than one-third of the schools fell into this category. Schools in the sample ranged in size from fewer than five teachers to more than fifty. Almost 40 per cent of the schools had twenty or more teachers.

Table VIII presents the distribution of schools in the sample according to grades included. Forty-seven schools, 28.3 per cent of the sample, contained only grades one to six. An equal number contained only junior or senior high school grades. The remaining 43.4 per cent was made up of schools combining elementary grades with junior and senior high school grades.

TABLE VIII

DISTRIBUTION BY GRADES INCLUDED OF SCHOOLS USED IN STUDY OF SCHOOL ORGANIZATIONAL CLIMATE

Grades Included	Number of Schools	Per Cent
1 - 6	47	28.3
1 - 8	8	4.8
1 - 9	25	15.1
1 - 11	2	1.2
1 - 12	37	22.3
7 - 9	13	7.8
7 - 12	14	8.4
9 - 12	6	3.6
10 - 12	14	8.4
Total	166[a]	99.9

[a]Statistics unavailable for five schools.

Description of the Sample Completing the MBTI

Principals from one hundred sixty-seven of the one hundred seventy-one schools taking part in the climate study were asked to complete the Myers-Briggs Type Indicator. Responses from one hundred sixty-four of these principals were scored and analyzed. Answer sheets were received from one hundred per cent of the group asked to complete the MBTI. One answer sheet was discarded because it was incomplete. Two others were not used, because they were received from schools having fewer than five usable climate questionnaires.

The description of the principal sample in the preceding section included only one hundred forty-four principals. Climate questionnaires from those teachers and principals who failed to answer three or more items were eliminated before the analysis of school organizational climate took place. Included in these rejects were twenty questionnaires from

principals. For this reason biographical data for twenty principals were not available for inclusion in the description of the sample.

II. ANALYSIS OF DATA AND RESULTS

This study was based on the fundamental premise that there is a pattern of personality types characteristic of school principals; and that the individual personality types that produce this pattern, and the indices of personality that interact to produce the types, are related to the behavior of the principal and ultimately to the characteristics of the group he leads.

In order to test the ten null hypotheses presented in Chapter II, data were obtained primarily from the use of two instruments, the MBTI and the OCDQ. A questionnaire appended to the OCDQ provided biographical data for the samples and a rating by teachers of their principals' effectiveness.

Hypotheses Concerning Differences in Patterns of Personality

This section will report the findings of the study with respect to the pattern of personality found among the sample of principals. The pattern produced by the male portion of the sample will be compared to patterns produced by two other male samples.

Table IX shows the distribution of personality types by sex. Two of the perception types, ESTP and ENTP, were not represented among the principals. The remaining six types containing the perception preference showed very low frequencies. In total only 11.2 per cent of the principals fell into the eight perception categories. All frequencies for

TABLE IX

DISTRIBUTION OF PRINCIPAL PERSONALITY TYPES BY SEX

Type	Number of Males	Per Cent	Number of Females	Per Cent	Total	Per Cent
ISTJ	23	16.1	1	4.8	24	14.6
ISFJ	10	7.0	3	14.3	13	7.9
INFJ	11	7.7	0	0.0	11	6.7
INTJ	12	8.4	1	4.8	13	7.9
ISTP	1	0.7	0	0.0	1	0.6
ISFP	1	0.7	0	0.0	1	0.6
INFP	4	2.8	0	0.0	4	2.4
INTP	4	2.8	0	0.0	4	2.4
ESTP	0	0.0	0	0.0	0	0.0
ESFP	1	0.7	0	0.0	1	0.6
ENFP	5	3.5	1	4.8	6	3.7
ENTP	0	0.0	0	0.0	0	0.0
ESTJ	27	18.9	6	28.6	33	20.1
ESFJ	14	9.8	3	14.3	17	10.4
ENFJ	8	5.6	3	14.3	11	6.7
ENTJ	22	15.4	3	14.3	25	15.2
Total	143	100.1	21	100.2	164	99.8

perception types were lower than the lowest frequency for any judgment type. These findings agree with those of Von Fange[6] who found with his sample of fifty-eight principals that five perception types, ESTP, ENTP, ISTP, ISFP and INTP were not represented among principals, and that the remaining three perception types had very low frequencies. The characteristics of planning, organizing, and decision-making associated with the judgment category make it plausible that most principals would possess this category in preference to the alternative, perception.

The modal type for both female and male principals was ESTJ, with

[6]Erich A. Von Fange, "Implications for School Administration of the Personality Structure of Educational Personnel" (unpublished Doctoral thesis, The University of Alberta, 1961), p. 116.

18.9 per cent of the males and 28.6 per cent of the females falling into the category. Again this finding is consistent with that of the Von Fange study.[7]

Hypothesis number one. The first hypothesis stated that there were no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index of personality, when the samples of principals from the Von Fange[8] study and the present study were compared.

Table X shows the percentage distribution and mean strength score of the preference categories for three male samples. Percentages are reported for the alternatives on each index of personality for the sample of male principals of the present study, the male principals in the Von Fange[9] study, and a sample of three hundred fifty male college graduates, hired by Westinghouse, including both technical and non-technical personnel.[10]

Table XI summarizes the results of the X^2[11] tests of the significance of the differences between the proportions in each of the preference categories for the two samples of principals. The significance of the differences on each index was tested separately using the formula for calculating X^2 for a 2 x 2 contingency table. A confidence level of .05 was set.

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[7] Ibid. [8] Ibid. [9] Ibid.

[10] Isabel Briggs Myers, Manual: The Myers-Briggs Type Indicator (Princeton, N.J.: Educational Testing Service, 1963), pp. 14-15.

[11] For convenience, the symbol X^2 is used to refer to chi square and chi square tests.

TABLE X

PERCENTAGE DISTRIBUTION AND MEAN STRENGTH SCORES FOR PERSONALITY PREFERENCES IN THREE ADULT MALE SAMPLES

		Principals Present Study	Principals Von Fange Study	College Graduates Industry Hired
N:		143	58	350
E	Per Cent	53.8	58.6	65
	Mean Strength	20.8	--[a]	25.4
I	Per Cent	46.2	41.4	35
	Mean Strength	18.5	--	19.4
S	Per Cent	53.8	54.3	50
	Mean Strength	23.4	--	22.6
N	Per Cent	46.2	45.7	50
	Mean Strength	21.1	--	21.0
T	Per Cent	62.2	58.6	82
	Mean Strength	19.0	--	22.8
F	Per Cent	37.8	41.4	18
	Mean Strength	15.0	--	11.4
J	Per Cent	88.8	92.3	74
	Mean Strength	34.3	--	27.6
P	Per Cent	11.2	7.7	26
	Mean Strength	14.9	--	19.8

[a]Mean strength scores not available.

TABLE XI

CHI SQUARE TESTS OF THE SIGNIFICANCE OF THE DIFFERENCES BETWEEN PREFERENCE PROPORTIONS WHEN PRINCIPALS FROM VON FANGE SAMPLE AND PRESENT SAMPLES ARE COMPARED

	X^2	Approximate Probability	H_0 Rejected
E-I	.38	.50	No
S-N	.00	.95	No
T-F	.23	.70	No
J-P	.53	.50	No

A chi square value of 3.84 is necessary for significance at the .05 level of confidence. Since all the values of X^2 were well below that value, the null hypothesis was accepted for all indices of personality. There was no reason to assume that the samples were not drawn from the same population in regard to measurements on the four indices of personality.

Hypothesis number two. The second hypothesis stated that there were no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index of personality, when the sample of male principals from the present study was compared with a sample of male college graduates hired by industry. The sample of industry-hired college graduates was chosen for purposes of comparison because, of the two non-teacher adult male samples for whom statistics were available, this one seemed most similar to the principal sample in terms of level of education. The percentage distribution in the preference categories for the two groups under consideration is found in Table X. Table XII summarizes the results of the X^2 tests of the significance of the differences between the proportions in each of the preference categories when the principal sample from this study was compared with a sample of male college graduates, industry-hired.

The hypothesis of no difference was rejected for three of the four indices of personality. On the EI dimension a significantly greater proportion of the industry-hired graduates than principals were extraverted. This suggests the principals as a group were more likely to direct both perception and judgment upon ideas rather than upon outside

TABLE XII

CHI SQUARE TEST OF THE SIGNIFICANCE OF THE DIFFERENCES BETWEEN PREFERENCE PROPORTIONS WHEN PRESENT PRINCIPAL SAMPLE AND SAMPLE OF INDUSTRY-HIRED COLLEGE GRADUATES ARE COMPARED

	X^2	Approximate Probability	H_o Rejected
E-I	5.49	.02	Yes
S-N	.60	.50	No
T-F	21.91	.001	Yes
J-P	13.11	.001	Yes

environment. On the TF dimension a significantly greater proportion of the principals preferred feeling to thinking. There is no conflict in the fact that principals are more introverted than their industry-hired counterparts, and at the same time are more likely to prefer a feeling type of judgment. Introverted-feeling types feel a quiet warmth toward others; and, as a result, their judgments tend to be more subjective than the judgments of the extraverted-thinking types, who tend to make judgments about people and things that are more objective.

On the JP index significantly more principals than industry-hired college graduates preferred judgment to perception. Judging types are described as those who like to plan their work and finish it on schedule. Perceptives like to leave things free for alteration and like to adapt to changing situations.[12]

In summary, the results of testing the first two hypotheses indicate that the sample of principals used in this study cannot be distinguished from the sample used in the Von Fange[13] study on the basis of

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[12]Myers, op. cit., pp. 80, A-4. [13]Von Fange, op. cit.

preferences on the four indices of personality, but can be distinguished from a sample of industry-hired college graduates on three of the four indices, the SN index being the exception.

Hypotheses Concerning Relationships Among Principal Personality Variables and Teacher Ratings of Principal Effectiveness

It is the purpose of this section to report that portion of the analysis carried out in an effort to determine relationships among the principals' results on the self-administered MBTI and a global rating of principal effectiveness given by staff members.

Three types of data from the MBTI were utilized: the principals' preferences on each index of personality, the principals' continuous scores on each index and the principals' personality types. Continuous scores for each index are derived from the strength scores by adding one hundred to I, N, F, or P scores, and subtracting one hundred from E, S, T, or J scores. The derivation of strength scores and continuous scores is described in the Manual.[14]

The rating of principal effectiveness was obtained from a single question contained in the questionnaire appended to the OCDQ. Teachers were asked to answer the question, "How effective do you consider your principal to be in performing all the various functions which he should perform?" on a six-point scale ranging from "outstanding" to "very poor." A rating of "outstanding" was given a score of one, while a rating of "very poor" was given a score of six. The rating of effectiveness for a

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[14] Myers, op. cit., pp. 8-10.

particular principal was the mean rating score assigned by the teachers on his staff who replied to the question.

Hypothesis number three. The third hypothesis stated that the correlations between principals' continuous scores on each index of personality and ratings of effectiveness given principals by their staffs did not differ significantly from zero. To test the hypothesis Pearson product-moment correlations were computed among the four indices of personality and the ratings of principal effectiveness. Table XIII shows these correlations.

TABLE XIII

PEARSON PRODUCT-MOMENT CORRELATIONS AMONG CONTINUOUS SCORES ON EACH INDEX OF PERSONALITY AND RATINGS OF PRINCIPAL EFFECTIVENESS

(N: 145)	E-I	S-N	T-F	J-P	R.E.
Extraversion-Introversion	1.000	-0.033	-0.001	0.153	0.061
Sensing-Intuition		1.000	0.200[a]	0.412	-0.018
Thinking-Feeling			1.000	0.285	-0.043
Judgment-Perception				1.000	0.122
Rated Effectiveness					1.000

[a]Correlation coefficients significantly different from zero are underlined.

The significance of the difference between the value of the correlation coefficients and zero was tested using the formula $t = r\sqrt{\frac{N - 2}{1 - r^2}}$ where "r" represents the correlation coefficient and "N" represents the

number of cases.[15] A confidence level of .05 was established. Correlations significantly different from zero are underlined in the table. There were no significant correlations between the continuous scores on the indices of personality and ratings of principal effectiveness. The null hypothesis was accepted in each case. The largest correlation was between the JP index and rated effectiveness. Its direction indicated that teachers rated their principals as less effective as the principals' strength scores increased in the direction of P. It must be noted again, however, that the correlation coefficient was not significantly different from zero.

One of the purposes in carrying out this study was to supply information about two new instruments, the MBTI and the OCDQ, as they relate to the study of administration and administrators. With this purpose in mind the intercorrelations among the indices of personality have been reported in Table XIII. It is worthy of note that with the principal sample the JP index correlated significantly with each of the other three indices and that SN correlated significantly with TF. The manual shows correlations between JP and SN ranging from .26 to .47 and small correlations ranging up to .20 between JP and TF,[16] but no significant correlations are reported between JP and EI or between SN and TF. The principal sample produced more significant intercorrelations among the indices of personality than any other sample for which results are reported in the manual.

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[15]George A. Ferguson, Statistical Analysis in Psychology and Education (Toronto: McGraw-Hill Book Company, Inc., 1959), p. 152.

[16]Myers, op. cit., p. 11.

Hypothesis number four. The fourth hypothesis stated that there were no significant differences between the mean ratings given by teachers to principals who fell into opposite categories when each of the four indices of personality were dichotomized. It was thought advisable to perform this additional analysis designed to reveal associations between principal personality variables and ratings of effectiveness for two reasons. First, although the manual for MBTI reports a number of studies that have utilized the continuous scores to determine product-moment correlations, the author points out that there is some evidence that the correlations are not always linear.[17] If this is so, significant relationships could go undetected if analyses were carried out using only correlation coefficients. Furthermore, the author suggests that the preference itself may be more important than its strength.

The additional analysis was carried out using a "t" test of the significance of the differences in mean ratings assigned to principals who fell into opposite categories when each index of personality was dichotomized. Table XIV presents the results of this analysis.

The mean for the distribution of ratings of effectiveness for the total sample of principals was 2.313 and the standard deviation was .664. None of the mean ratings when the categories were considered separately varied more than .154 from this over-all mean. As would be expected, the "t" tests of the significance of differences between mean ratings for principals in opposite personality categories showed no significant differences. The null hypothesis was accepted in all cases. The largest

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[17] Ibid., p. 40.

TABLE XIV

COMPARISON OF MEAN RATINGS OF EFFECTIVENESS FOR PRINCIPALS WITH OPPOSITE PREFERENCES ON EACH INDEX OF PERSONALITY

Preference	Number of Principals	Mean Rated Effectiveness	H_0 Rejected
Extraversion	93	2.296	No
Introversion	71	2.333	
Sensing	90	2.332	No
Intuition	74	2.288	
Thinking	100	2.319	No
Feeling	64	2.301	
Judgment	147	2.294	No
Perception	17	2.467	

difference in mean ratings occurred between principals who were assigned to opposite categories on the JP index. The rating favored principals in the judgment category.

Hypothesis number five. The fifth hypothesis stated that there were no significant differences among the median ratings given by teachers to principals who were classified into different personality types. Each principal belongs to one and only one personality type. Since a number of types, particularly those containing the perception preferences, represented very small numbers of principals, it was decided for the purposes of this analysis to include only those types containing four or more principals. This decision eliminated five of the eight types containing a perception preference.

Table XV shows the median effectiveness rating for the principals in each of the remaining types. The types are ranked on the basis of their effectiveness, with the type receiving the best rating of

TABLE XV

MEDIAN EFFECTIVENESS RATINGS FOR PRINCIPALS OF ELEVEN DIFFERENT PERSONALITY TYPES

Type	Number of Principals	Median Effectiveness Rating
INTJ	13	1.88
ENFJ	11	2.00
ISFJ	13	2.00
INFP	4	2.10
ESTJ	33	2.11
ENFP	6	2.17
ENTJ	25	2.25
ISTJ	24	2.27
INFJ	11	2.44
ESFJ	17	2.56
INTP	4	3.21
Total	161	

effectiveness, placed at the top. A low score represents a high rating of effectiveness, since a rating of "outstanding" on the original question was assigned a score of one, and a rating of "very poor" was assigned a score of six.

The significance of the difference in effectiveness ratings for the different types was testing using the Kruskal-Wallis one-way analysis of variance. The .05 level of confidence was established. The null hypothesis that the independent samples were from the same population was accepted.

Hypotheses Concerning Relationships Between Principals' Personality and School Organizational Climate

This section contains a report of the results of analyses carried out to determine relationships between personality variables, as measured

by the MBTI, and school organizational climate, as measured by the OCDQ. Three types of data from the MBTI were used: the principals' personality types, the principals' preferences when each index of personality was dichotomized, and the principals' continuous scores on each index of personality. Two types of data from the OCDQ were used: the category of organizational climate into which each school was placed, and the schools' scores on each of the eight dimensions of school organizational climate.

Hypothesis number six. The sixth hypothesis stated that the climates of schools as determined by the Halpin and Croft prototypes were independent of the personality types of principals. School climate and personality types are categories. The sixth hypothesis was tested using a chi square test of independence. The contingency table required contained eighty-four cells. As a result, the expected frequencies in a number of cells were small. To overcome the difficulties caused by the large number of cells and the small expected frequencies, the procedures suggested by Maxwell,[18] for use when the degrees of freedom are greater than thirty and expected frequencies are very small, were employed. The .05 level of confidence was established.

Table XVI is the contingency table showing the relationships between the presonality types of the principals and the organizational climates of the schools. The expected values for each cell are enclosed in brackets. Only fourteen personality types were included in the table because two types were not represented among principals.

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[18]A. E. Maxwell, Analyzing Qualitative Data (New York: John Wiley and Sons, 1961), pp. 41-44.

TABLE XVI

CONTINGENCY TABLE SHOWING THE RELATIONSHIP BETWEEN PRESONALITY TYPE AND SCHOOL ORGANIZATIONAL CLIMATE

	Open	Auton	Contr	Famil	Pater	Closed	Total
ISTJ	2 (5.854)[a]	4 (1.902)	6 (4.098)	1 (2.927)	2 (2.634)	9 (6.585)	24 (24.000)
ISFJ	4 (3.171)	1 (1.030)	0 (2.219)	1 (1.585)	2 (1.427)	5 (3.567)	13 (12.999)
INFJ	2 (2.683)	1 (0.872)	2 (1.878)	3 (1.341)	1 (1.207)	2 (3.018)	11 (10.999)
INTJ	6 (3.171)	0 (1.030)	1 (2.219)	4 (1.585)	1 (1.427)	1 (3.567)	13 (12.999)
ESTJ	7 (8.049)	3 (2.616)	10 (5.634)	4 (4.024)	3 (3.622)	6 (9.055)	33 (33.000)
ESFJ	2 (4.146)	0 (1.348)	6 (2.902)	1 (2.073)	2 (1.866)	6 (4.665)	17 (17.000)
ENFJ	5 (2.683)	1 (0.872)	1 (1.878)	1 (1.341)	1 (1.207)	2 (3.018)	11 (10.999)
ENTJ	6 (6.098)	1 (1.982)	2 (4.268)	3 (3.049)	5 (2.744)	8 (6.860)	25 (25.001)
ISTP	0 (0.244)	0 (0.079)	0 (0.171)	0 (0.122)	0 (0.110)	1 (0.274)	1 (1.000)
ISFP	0 (0.244)	0 (0.079)	0 (0.171)	1 (0.122)	0 (0.110)	0 (0.274)	1 (1.000)
INFP	2 (0.976)	1 (0.317)	0 (0.683)	0 (0.488)	0 (0.439)	1 (1.100)	4 (4.003)
INTP	1 (0.976)	0 (0.317)	0 (0.683)	0 (0.488)	0 (0.439)	3 (1.100)	4 (4.003)
ESFP	0 (0.244)	1 (0.079)	0 (0.171)	0 (0.122)	0 (0.110)	0 (0.274)	1 (1.000)
ENFP	3 (1.463)	0 (0.476)	0 (1.024)	1 (0.732)	1 (0.659)	1 (1.646)	6 (6.000)
Total	40 (40.002)	13 (12.999)	28 (27.999)	20 (19.999)	18 (18.001)	45 (45.003)	164 (164.003)

[a]Expected values enclosed in brackets.

The X^2 values of 76.394 was not found to be significant when the procedures suggested by Maxwell were employed. The probability was found to be .303. The null hypothesis of independence of organizational climate from personality type was accepted.

Hypothesis number seven. The seventh hypothesis stated that the correlations between school scores on the eight subtests of the OCDQ and the continuous scores produced by the principals on the four indices of personality were not significantly different from zero. To test the hypothesis product-moment correlation coefficients were calculated for all possible pairs produced by combining climate dimensions and personality indices. Table XVII presents these correlation coefficients. The significance of the difference between the value of the correlation coefficients and zero was tested using "t" tests. The .05 level of confidence was established. Significant correlations are underlined in Table XVII.

The correlation coefficients contained within the boundaries of the rectangle drawn in the table are those which were used to test hypothesis number seven. Reference to this section indicates that only one significant correlation was found between personality indices and organizational climate dimensions. The null hypothesis was accepted in thirty-one of thirty-two cases.

The significant negative correlation between the Production Emphasis dimension of organizational climate and the JP index of personality indicates that principals tend to emphasize production less as their scores increase in the direction of P. This correlation must be interpreted with caution. Since no *a priori* hypotheses were established

TABLE XVII

PEARSON PRODUCT-MOMENT CORRELATIONS AMONG CONTINUOUS SCORES ON EACH INDEX OF PERSONALITY AND SCORES ON DIMENSIONS OF ORGANIZATIONAL CLIMATE

(N: 145)	Dis.	Hind.	Esp.	Int.	Al	P.E.	Thr.	Con.	EI	SN	TF	JP	RE
Disengagement	1.000	.492[a]	-.608	.057	.144	.035	-.463	-.115	-.124	-.026	-.018	.062	.459
Hindrance		1.000	-.361	-.110	.159	.117	-.420	-.223	.081	-.078	-.106	.066	.369
Esprit			1.000	.246	-.133	.119	.662	.346	-.073	-.019	-.020	-.079	-.638
Intimacy				1.000	-.165	.222	.316	.481	-.104	-.062	-.029	.094	-.210
Aloofness					1.000	.108	-.110	-.109	-.026	-.120	-.101	.001	.123
Production Emphasis						1.000	.269	.159	.100	.055	.121	-.159	.264
Thrust							1.000	.590	-.116	-.004	-.055	-.096	-.838
Consideration								1.000	-.137	.115	.105	.057	-.454
Extraversion-Introversion									1.000	-.033	-.001	.153	-.061
Sensing-Intuition										1.000	.200	.412	-.018
Thinking-Feeling											1.000	.285	-.043
Judging-Perceiving												1.000	-.122
Rated Effectiveness													1.000

[a]Underlined correlation coefficients are significantly different from zero at the .05 level of confidence.

concerning the kinds of relationships one might expect to find between personality indices and dimensions of organizational climate, and since the .05 level of confidence was established in testing the significance of correlation coefficients, it is probable that a group of thirty-two correlation coefficients would contain at least one significant correlation by chance.

In the section of this report dealing with hypothesis number three it was pointed out that one of the purposes in carrying out this study was to supply information about two new instruments, the OCDQ and the MBTI. With this purpose in mind the intercorrelations among the dimensions of organizational climate and among the indices of personality were included in Table XVII. Also included were the coefficients indicating the correlation between principals' effectiveness, as rated by teachers, and each of the dimensions and indices. The intercorrelations among the personality indices and their correlation with the rating of principals' effectiveness have been discussed in connection with the third hypothesis.

Of the twenty-eight possible intercorrelations among climate dimensions, seventeen were significant. These correlations were calculated from one hundred sixty-four school scores, which are averages of replies from up to ten teachers within the school. The significant correlations are almost identical in pattern to those reported by Halpin and Croft,[19] even though those reported by Halpin and Croft were calculated

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[19]Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963), p. 38.

using the scores for each respondent rather than the mean score for each school. In general, however, the coefficients reported in Table XVII are considerably larger than those reported in the original study.

The highest correlations were found between Esprit and Thrust, Esprit and Disengagement, and Thrust and Consideration. The correlation coefficients were .662, -.608, and .590 respectively. The corresponding correlations from the original organizational climate study were .60, -.36, and .49. Thrust correlated significantly with all other dimensions except Aloofness. Esprit, Consideration and Intimacy each correlated significantly with all but two of the other dimensions.

In addition to correlating significantly among themselves, seven of the eight climate dimensions were significantly correlated with a global rating of principal effectiveness. The rating was supplied by teachers in response to a single question asking them to rate their principals on a six-point scale. A rating on the scale of "outstanding" was assigned a score of one, while a rating of "very poor" was assigned a score of six. A negative correlation, therefore, indicated that the rating of effectiveness improved as the score on the correlated climate dimension increased. Only Aloofness failed to correlate significantly with this scale of effectiveness. Thrust, a measure of principal behavior, produced a correlation of .838 with the rating of principal effectiveness. Esprit, a measure of group behavior, produced a correlation of .638, with the effectiveness rating. As reported previously, Thrust and Consideration, in turn, correlated significantly with six and five of the other climate dimensions, respectively.

An analysis not originally proposed was carried out after the

results of testing hypothesis seven were available. On the hypothesis that a principal might perceive his school situation differently than his teachers, correlation coefficients between the principals' scores on the personality indices and the principals' individual scores on each of the dimensions of school organizational climate were calculated. Table XVIII shows these correlation coefficients. Those underlined were significantly different from zero at the .05 level of confidence.

TABLE XVIII

PEARSON PRODUCT-MOMENT CORRELATIONS BETWEEN CONTINUOUS SCORES ON PERSONALITY INDICES AND PRINCIPALS' SCORES ON CLIMATE SUBTESTS

(N: 145)	EI	SN	TF	JP
Disengagement	-0.057	0.147	-0.117	-0.016
Hindrance	0.070	-0.070	0.019	0.028
Esprit	-0.141	0.032	-0.007	-0.144
Intimacy	-0.267[a]	0.075	-0.086	0.037
Aloofness	-0.093	0.032	-0.043	-0.081
Prod.Emphasis	-0.105	-0.094	-0.160	-0.131
Thrust	-0.136	0.001	-0.069	-0.150
Consideration	-0.275	0.104	-0.030	-0.076

[a]Underlined coefficients are significantly different from zero.

Only two of the thirty-two correlations were significantly different from zero. Both were large enough that the probability of their occurrence by chance was less than .001. They indicated that Intimacy and Consideration were negatively correlated with the EI dimension. As

the principals' scores increased in the direction of extraversion, the principals tended to perceive that their behavior was characterized by attempts to do a little something extra for teachers in human terms. They perceived also that the members of the teaching staff enjoyed friendly social relations with each other.

Hypothesis number eight. The eighth hypothesis stated that no significant differences in the mean scores on each of the eight subtests of the OCDQ occurred between schools whose principals fell into opposite categories when each index of personality was dichotomized. As with hypothesis number four, it was thought advisable to perform this additional analysis, because there is some evidence that correlations involving the personality indices are not always linear, and because it has been suggested that the preference itself may be more important than its strength.

The analysis was carried out using a "t" test of the significance of the differences between mean scores on each of the subtests of the OCDQ produced by schools whose principals fell in opposite categories when each index of personality was dichotomized.

Table XIX shows the mean OCDQ subtest scores for each category of principal preference, and indicates the results of the analysis using "t" tests. The underlined pairs of means are those found to be significantly different. The means of only one pair were significantly different. The finding of a significant difference with this pair must be interpreted with caution. Because no *a priori* hypotheses were established concerning differences one might expect to find, and because the .05 level of confidence was established in testing differences, it could be expected

TABLE XIX

COMPARISON OF MEAN SCORES ON OCDQ SUBTESTS FOR PRINCIPALS WITH OPPOSITE PREFERENCES ON EACH INDEX OF PERSONALITY

	N	Mean Diseng.	Mean Hind.	Mean Esprit	Mean Intim.	Mean Aloof.	Mean P.E.	Mean Thrust	Mean Cons.
Extraversion	93	50.06	49.80	50.15	50.43	50.09	50.75	50.42	50.42
Introversion	71	50.06	50.69	49.48	49.52	49.96	49.20	49.30	48.60
Sensing	90	50.71	51.50	49.69	49.37	51.36	50.50	49.93	49.23
Intuition	74	49.27	48.59	50.06	50.84	48.41	49.56	49.94	50.13
Thinking	100	49.50	50.80	50.44	50.12	50.91	50.75	50.03	49.43
Feeling	64	50.92	49.22	48.95	49.90	48.65	49.02	49.77	49.95
Judging	147	50.02	50.09	50.12	50.08	50.13	50.68[a]	50.13	49.40
Perceiving	17	50.37	51.00	47.60	49.69	49.17	44.85	48.24	51.68

[a]Pairs of means found to be significantly different are underlined.

that one significant difference would be found in thirty-two pairs of means. However, the relationship between JP and Production Emphasis suggested by the significant difference in means is the same as that suggested by the only significant correlation found in Table XVII. The difference in means suggested that principals with a preference for perception did not emphasize production as much as those who showed a preference for judging. Behavior of principals with a perception preference is not characterized by close supervision, and such principals are not highly directive toward their staffs.

Hypothesis number nine. The ninth hypothesis stated that no significant differences in median scores on each of the eight subtests of the OCDQ occurred between schools whose principals fell into different personality types. Personality types are determined by combining an individual's four preferences, one from each index. An analysis involving types was carried out in addition to an analysis using the personality indices separately, because it was felt that the results of the interaction of the traits included in the four indices might show relationships with elements of organizational climate that were not evident when the indices were studied separately.

Table XX shows the median scores on each OCDQ subtest for each personality type. Only eleven of the sixteen possible types appear in the table, because those types representing fewer than four principals were not included. The scores on the OCDQ subtests are standard scores with a mean of fifty for the total group and a standard deviation of ten. The largest and smallest median scores on each index are underlined in

the table. It is noteworthy that six of the possible sixteen highest and lowest scores are contained within the scores for the INTP type.

TABLE XX

MEDIAN SCORES ON OCDQ SUBTESTS ASSOCIATED WITH PERSONALITY TYPES OF PRINCIPALS

Type	N	Disen.	Hind.	Esprit	Intim.	Aloof.	Prod. Emph.	Thrust	Cons.
ESTJ	33	47.485	47.931	49.765	51.031	49.450	51.789	51.504	50.004
ENTJ	25	49.958	49.289	50.561	50.589	50.585	50.486	52.168	51.775
ISTJ	24	48.721	56.498	48.372	48.270	54.449	49.258	48.270	45.786
ESFJ	17	50.122	54.717	47.974	48.086	48.772	49.525	45.866	43.379
ISFJ	13	53.916	52.275	50.659	54.568	54.783	53.919	52.830	49.495
INTJ	13	46.825	44.335	52.272	53.242	46.634	47.526	57.474	51.775
ENFJ	11	47.855	41.740	57.416	53.242	42.092	51.078	54.046	53.273
INFJ	11	47.855	46.575	42.961	47.440	43.929	48.193	45.571	42.480
ENFP	6	48.603	50.518	47.885	49.643	51.498	52.786	52.250	59.151
INFP	4	40.676[a]	41.655	52.406	51.336	43.861	40.870	53.494	50.642
INTP	4	57.020	66.606	36.932	43.112	48.304	45.219	34.423	41.430

[a]Highest and lowest median scores on each subtest are underlined.

Each column in Table XX contains fifty-five possible pairs of medians. Median tests were utilized to test the significance of the difference between the medians included in each pair. Table XXI indicates the personality-type pairs associated with significant differences between medians on each subtest of the OCDQ. In each case the type written on the left of the pair was the one associated with the larger

score.

Significant differences were found in nine cases. These significant differences were associated with three of the eight climate subtests. No significant differences were found between distributions of scores on the Disengagement, Esprit, Intimacy, Production Emphasis and Consideration subtests. Four of the significant differences occurred between scores for Hindrance, two between scores for Aloofness and three between scores for Thrust.

TABLE XXI

PAIRS OF PERSONALITY TYPES ASSOCIATED WITH SIGNIFICANTLY DIFFERENT MEDIAN SUBTEST SCORES ON THE OCDQ

Climate Subtest	Personality Types	Level of Significance
Hindrance	<u>ISTJ</u> - ENFJ[a]	.05
	<u>ISTJ</u> - INTJ	.05
	<u>ESFJ</u> - ENFJ	.05
	<u>ESFJ</u> - INTJ	.05
Aloofness	<u>ISTJ</u> - ENFJ	.001
	<u>ENTJ</u> - ENFJ	.05
Thrust	<u>INTJ</u> - INFJ	.05
	<u>INTJ</u> - ESFJ	.05
	<u>INTJ</u> - ISTJ	.05

[a]Type with higher score in each pair is underlined.

On the Hindrance subtest the highest and lowest medians were associated with the INTP and INFP personality types, respectively. Since each of these types contained only four members, no significant differences were determined between scores for them and any others with which they were paired. However, the second and third highest medians, those

associated with ISTJ and ESFJ, were found to be significantly different from the second and third lowest, those associated with ENFJ and INTJ, respectively.

On the Aloofness subtest the lowest median score was associated with the ENFJ type. This score was found to be significantly different from the scores associated with the ISTJ and ENTJ types. The difference between the median scores for ISTJ and ENFJ was significant at the .001 level.

On the Thrust subtest the highest median score was associated with the INTJ personality type. The lowest median score was associated with the INTP type, which contained only four members. The score for INTJ was found to be significantly different from the second, third and fourth smallest scores, those associated with INFJ, ESFJ, and ISTJ respectively.

Hypothesis number ten. The tenth hypothesis stated that no significant differences in mean scores on each of the eight subtests of the OCDQ occurred between schools categorized by combining in pairs their principals' preferences on each index of personality.

The results of testing hypothesis number nine indicated that certain personality types produced significantly higher scores than others on some of the OCDQ subtests. Hypothesis number ten was tested to determine whether differences might be associated with particular pairs of preferences found in more than one type. The analysis carried out in connection with hypothesis number eight considered the preferences on each index separately. Only one significant difference between OCDQ mean scores was found when this approach was used.

Table XXII shows the mean scores on the OCDQ subtests associated with all the possible pairs of personality preferences. The pairs are combined in groups of four in such a way that principals associated with one pair of preferences in the group are not associated with any of the other three. All principals in the sample are included within the four pairs of preferences in each group. Each mean within a group was compared with each of the others, using "t" tests to determine the significance of the differences in mean scores. Six comparisons were made for each of the forty-eight groups. In those cases where one member of a pair being tested had fewer than fifteen members, any differences found significant using "t" tests were checked using the non-parametric median test. Six pairs of scores found to be significantly different when the "t" test was used were not found to be significantly different when the median test was utilized as a check.

Table XXIII shows the preference pairs associated with significant differences in mean scores on each of the OCDQ subtests. No significant differences were found among any of the possible pairs of mean scores on six of the eight climate subtests.

The Hindrance subtest produced significant differences within one group of pairs. The mean score for Hindrance associated with the NF combination of preferences was significantly smaller than the mean scores associated with the SF, ST, and NT combinations. On the Aloofness subtest means were significantly different for only one pair. Once again the NF combination produced a significantly smaller score than the ST combination.

TABLE XXII

MEAN SCORES ON OCDQ SUBTESTS ASSOCIATED WITH PAIRS OF PERSONALITY PREFERENCES

Pair	n	Disen.	Hind.	Esprit	Intim.	Aloof	Prod.Em.	Thrust	Consid.
FP	12	48.76	48.09	49.46	51.60	49.81	44.46	51.83	54.99
FJ	52	51.42	49.49	48.84	49.51	48.38	50.07	49.30	48.78
TP	5	54.21	57.96	43.16	45.10	47.61	45.80	39.63	43.75
TJ	95	49.26	50.43	50.82	50.38	51.09	51.01	50.58	49.73
NF	32	48.50	45.88	49.46	50.19	46.61	48.41	50.25	50.69
NT	42	49.85	50.66	50.52	51.34	49.78	50.44	49.70	49.70
SF	32	53.34	52.58	48.45	49.62	50.69	49.64	49.30	49.20
ST	58	49.25	50.91	50.38	49.24	51.73	50.98	50.28	49.25
IF	29	50.88	47.89	48.75	50.74	48.86	47.97	49.74	49.03
IT	42	49.49	52.62	49.99	48.67	50.71	50.05	48.99	48.30
EF	35	50.96	50.33	49.12	49.21	48.47	49.89	49.80	50.70
ET	58	49.51	49.49	50.77	51.17	51.06	51.27	50.79	50.25
ES	51	49.90	50.73	49.04	49.01	50.65	50.66	49.93	50.06
EN	42	50.24	48.69	51.49	52.15	49.39	50.86	51.01	50.87
IS	39	51.76	52.52	50.54	49.84	52.29	50.29	49.93	48.14
IN	32	47.99	48.46	48.20	49.12	47.12	47.87	48.53	49.16
EP	7	51.69	50.23	47.54	51.60	52.28	46.53	51.75	58.11
EJ	86	49.92	49.77	50.36	50.33	49.91	51.09	50.31	49.80
IJ	61	50.16	50.55	49.78	49.71	50.44	50.10	49.87	48.83
IP	10	49.44	51.54	47.65	48.35	46.99	43.68	45.79	47.18
SJ	87	50.84	51.68	49.79	49.29	51.42	50.99	50.12	49.26
SP	3	46.86	46.39	46.78	51.84	49.71	36.38	44.49	48.36
NJ	60	48.84	47.80	50.60	51.22	48.26	50.24	50.14	49.60
NP	14	51.12	51.99	47.78	49.22	49.05	46.67	49.04	52.40

TABLE XXIII

COMBINATIONS OF PERSONALITY PREFERENCES ASSOCIATED WITH SIGNIFICANTLY DIFFERENT MEAN SUBTEST SCORES IN OCDQ

Climate Subtest	Preference Pairs	t	df	Level of Significance
Hindrance	<u>SF</u> vs NF[a]	2.72	62	.01
	<u>ST</u> vs NF	2.07	88	.05
	<u>NT</u> vs NF	2.08	72	.05
Aloofness	<u>ST</u> vs NF	2.35	88	.05

[a]Preference pairs associated with higher means are underlined.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The purpose of this chapter is to summarize and interpret the findings outlined in Chapter III. The findings will be discussed in three sections. The first will deal with findings concerning the pattern of personality types found among principals. The second section will discuss the results of statistical tests carried out to determine relationships between personality characteristics of principals and ratings of principal effectiveness. The final section will deal with the findings concerning relationships among measures of personality characteristics and measures of school organizational climate.

Summary and Conclusions Relating to Patterns of Personality Type

The pattern of preference types found among the principals in the sample showed a rather striking similarity to the pattern produced by the principals who took part in the study conducted by Von Fange.[1] In no case did the two samples produce a difference in proportion of more than five per cent in any preference category. And since the proportion in a particular type is simply the product of the proportions in each of the preference categories included in that type, the proportions in each type were likewise very similar. With both samples the modal type was ESTJ,

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[1]Erich A. Von Fange, "Implications for School Administration of the Personality Structure of Educational Personnel" (unpublished Doctoral thesis, The University of Alberta, 1961), p. 93.

and with both samples a very small proportion of principals fell into type classifications containing a preference for perception.

Over half the male principals in the sample used in the present study fell into three of the possible sixteen types. The types, ESTJ, ISTJ, and ENTJ included seventy-two of one hundred forty-three male principals. These three types have in common a preference for both thinking and judging. Persons with this combination of preferences tend to be logical, executive, decisive and critical. They like to organize their work well in advance and get things done on time.[2]

The four types having feeling and judging preferences in common made up an additional 30.1 per cent of the male sample. These types are described as combining an awareness of other people and their feelings, with a desire to plan their work and to be able to get it finished on time. Persons with a preference for feeling tend to have decisions influenced by personal likes and wishes and dislike telling people unpleasant things.[3]

The high frequencies in the TJ types would seem to suggest that those responsible for selecting administrators place high priority on decisiveness and organizational ability. There is, however, at least one other possible explanation for this phenomenon. Von Fange[4] found that there were no significant differences in the distribution of personality type between principals and male teachers. In other words,

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[2]Isabel Briggs Myers, Manual: The Myers-Briggs Type Indicator (Princeton, N.J.: Educational Testing Service, 1963), pp. 66-67.

[3]Ibid., p. 80. [4]Von Fange, op. cit., p. 117.

the TJ types were prevalent before selections were made for the principalship. This would mean that some other type of selection process was taking place earlier in the lives of potential principals.

This suggestion is consistent with findings from studies employing the MBTI with high school pupils.[5] These findings indicate that academic achievement is associated with personality type in two ways. First, preferences for I and N, particularly N, are associated with high I.Q. and a natural interest in scholastic activity. Secondly, J types tend to overachieve in school, whereas P types, in general, achieve below the level expected. It would be expected, therefore, that types combining preferences for I, N and J would continue in scholastic pursuits longer than types combining E, S and P. An examination of the types found among principals shows only one principal with the ESP combination of preferences. The next three frequencies, in order of size, follow the expected pattern. Two principals had the ISP combination of preferences, five had the ENP combination, and eight had the INP combination. As the I and N preferences are added the frequencies increase. The only exception to the pattern is the type, ENTP. No principals were included in this type. This type is one of those into which a number of creative mathematicians were categorized.[6]

Two subproblems were investigated in connection with this section. The null hypothesis tested in connection with the first was stated as follows: There are no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index

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[5]Myers, op. cit., p. 43. [6]Ibid., p. 32.

of personality, when the samples of principals from the Von Fange study and the present study are compared.

The hypothesis of no significant differences was accepted for all four indices. This finding suggests that there is a pattern of personality types characteristic of principals and that the MBTI is reliable to the extent that the same pattern was determined with two different samples of male principals in Alberta.

The second hypothesis was put forward in an attempt to determine whether principals could be distinguished on the basis of results on the MBTI from another adult male group with university training. The hypothesis was stated as follows: There are no significant differences in the observed percentages in the preference categories, produced by dichotomizing each index of personality, when the sample of male principals from the present study is compared with a sample of male college graduates hired by industry. The proportions in the preference categories were found to be significantly different on three of the four indices. The differences were significant beyond the .001 level of confidence in the case of the TF and JP dimensions. A greater proportion of the principals than industry-hired college graduates preferred introversion, feeling, and judging. Principals as a group appear more likely to direct perception and judging upon ideas rather than upon their outside environment, more likely to be aware of other people and their feelings, and more likely to emphasize planning and organization, than their industry-hired counterparts.

Summary. This section has presented evidence with regard to the

reliability and discriminatory powers of the MBTI. A replication of that portion of the Von Fange study dealing with the personality pattern of principals indicated that the instrument was able to show a very similar pattern of personality preferences with two different samples of Alberta principals. A comparison of the personality-preference patterns produced by principals and industry-hired college graduates indicated that the instrument was able to distinguish between the two vocational groups. Further research with the instrument, especially studies concentrating on patterns of personality preferences among different vocational groups, seems justified.

Summary and Conclusions Relating to Relationships Between Personality Characteristics of Principals and Ratings of Principal Effectiveness

This section is concerning with drawing conclusions from the results of analyses carried out to determine relationships between the personality characteristics of principals and ratings of principal effectiveness given by teachers. Three different analyses were carried out to detect relationships that might exist. The continuous scores on each index of personality were correlated with the rating scores; the significance of differences between mean ratings associated with principals who fell into opposite categories on each index of personality was tested using "t" tests; and the significance of differences between median ratings of effectiveness associated with different personality types was tested using the Kruskal-Wallis one-way analysis of variance. In every case no significant relationships were found between principal personality characteristics and the global rating of effectiveness given

principals by their staffs.

These findings can be explained in at least three ways. First, perhaps no relationships exist between principal effectiveness and the personality variables measured by the MBTI. It is possible for an instrument to consistently place individuals into the same categories, without these categories having any necessary relationship to some other specified variable or variables.

Secondly, it could be that one or other of the measures was unreliable or invalid. Coladarci[7] has stated in reference to average ratings of effectiveness:

> If the reference group being polled comprises a multiplicity of frames-of-reference, it follows that the customary differences may be a direct reflection of the differing conceptions of educational purposes, functions, etc. And if the latter condition holds, the usual procedure of identifying the most common or "average" conception of success behavior as the most valid one is, at best, spurious and, at worst, misleading.

No attempt was made in this study to determine the reliability or validity of the global rating given by teachers as a measure of principal effectiveness. It should be noted, however, that while the average ratings did not correlate significantly with the continuous scores on the personality indices, they did correlate highly with the mean scores of the OCDQ subtests Thrust and Esprit. Evidence of the reliability and validity of the MBTI has been presented in the manual, and was discussed previously in the section describing the instruments.

A third explanation may follow from the fact that a rating of

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[7]A. P. Colardarci, "Administrative-Success Criteria," Phi Delta Kappan, XXXVII (April, 1956), 284.

effectiveness is invariably a rating of effectiveness within a particular situation. It is possible that certain personality types might be highly effective in one situation and totally ineffective in another. The situations in which the principals taking part in this study operated were controlled to the extent that all school principals have certain responsibilities in common, but the schools administered by the principals varied widely in size, type, and location. It could be argued, therefore, that any relationships that might have existed between principal personality type and principal effectiveness were obscured when effectiveness ratings for principals from widely different situations were grouped for purposes of analysis.

Summary and Conclusions Relating to Relationships Between Principal Personality and School Organizational Climate

This section is concerned with drawing conclusions from the results of analyses carried out to determine relationships between personality variables and measures of school organizational climate. A total of five hypotheses were tested in an attempt to determine these relationships.

The test of the first of these hypotheses was made to ascertain whether the climates of schools, as determined by comparisons with the Halpin and Croft prototypes, were related in any significant way to the personality types of the schools' principals. The chi square test of independence indicated that no significant relationship existed between personality type and school organizational climate.

This analysis and all others carried out in connection with this

section were handicapped by the fact that almost ninety per cent of the principals preferred judging to perception on the JP index of personality. This circumstance caused the frequencies in half the personality types to be very small or non-existent. It seems likely that the loss of these types for purposes of analysis reduced the possibility of finding significant relationships.

Another factor may have influenced the results of the analysis, which was carried out using the six categories of organizational climate. The schools from the present sample were categorized by comparing their scores on the OCDQ subtests with the scores on the subtests in each of six prototype profiles. The sum of the absolute differences between each prototypic profile produced a "profile-similarity score," which was used to assign the school to a category of school organizational climate. This procedure, somewhat questionable in itself as a method of comparing profiles, was based on the assumption that the scores producing the prototypic profiles could be considered norms. It must be noted that these "norms" were developed from a single study using a sample of American elementary schools less than half the size of the present sample.

The second and third hypotheses in this section were tested in an attempt to determine relationships between the four indices of personality and the eight dimensions of organizational climate. These two hypotheses were associated with two different approaches to the use of the MBTI. To test the second hypothesis, product-moment correlations were computed using the continuous scores on each of the four personality scales and the standard scores on each of the eight organizational climate subtests. To test the third hypothesis tests were made of the

significance of the differences between mean scores on each of the subtests of the OCDQ produced by schools whose principals fell into opposite categories when each of the four indices of personality was dichotomized. The second of these approaches is more consistent with the theory underlying the development of the MBTI than the first, but the first approach has been used in a number of studies reported in the manual for the MBTI.

The results from the two appoaches were similar. The single relationship indicated by the results of the first analysis corresponded to the only relationship indicated by the results of the second. The only significant correlation coefficient indicated a relationship between the continuous scores on the JP index of personality and the standard scores for the Production Emphasis subtest of the OCDQ. The only significant difference in mean scores was found between the mean scores of the Production Emphasis subtest produced by schools whose principals fell into opposite categories when the JP index was dichotomized. The analyses in both cases indicated that principals with stronger preferences for judging were more likely to be associated with higher scores on the Production Emphasis subtest of the OCDQ.

The direction of the indicated relationship suggested that principals who perceived themselves to be decisive, to prefer planning well in advance, and to like getting things completed on schedule were perceived by their staffs to supervise more closely and to be more highly directive than principals who perceived themselves to like to adapt to changing situations and to prefer to leave things free for alterations.

An additional analysis carried out in connection with this section, in which the principals' scores on the MBTI were correlated only with

their own scores on each of the OCDQ subtests, did not produce a significant correlation between Production Emphasis scores and the continuous scores on the JP scale, but did produce significant correlations between the continuous scores on the EI index and scores on the Intimacy and Consideration subtests of the OCDQ. This finding suggested that the principals might have perceived their school situations differently from their staffs. If further research supports this finding and is able to show that the pattern of responses produced by the principal differs more from the pattern produced by the staff as a group than the pattern produced by any other individual on the staff, it might seem advisable to exclude the principal from the group responding to the OCDQ in future studies.

The fourth hypothesis tested in an attempt to determine relationships between personality and organizational climate was concerned with differences in median OCDQ subtest scores produced by different personality types. Median tests were utilized to compare in pairs the distributions of OCDQ subtest scores associated with eleven different personality types. Only eleven of the possible sixteen types were included in the analysis, because types representing fewer than four principals were eliminated. Significant differences were found in nine cases. These differences were associated with the Hindrance, Aloofness and Thrust subtests.

Certain trends were evident in connection with the personality types associated with the significant differences. Both ISTJ and ESFJ were associated with high scores for Hindrance and low scores for Thrust. ISTJ was also associated with a high score for Aloofness. Reference to

Table XV, page 65, indicates that ESFJ and ISTJ types received the second and fourth highest median effectiveness scores. High effectiveness scores indicate a low rating of effectiveness by staff members.

The ISTJ type is described as the super-dependable. He likes to put everything on a factual basis. He is the most thorough of all the types. As an administrator, his practical judgment and memory for detail makes him conservative and consistent. It is hard for him to see any sense in needs that differ widely from his own. If his judgment is not developed, he may stop with his inward reaction to facts and not get around to dealing with them at all, which will make him silent, ineffective and next to impossible to understand.[8]

The ESFJ type values harmonious human contacts above all things. He is at his best when talking with people. Sociability may slow him down on the job. He likes to have matters settled. He has many "shoulds" and "should-nots" and may express them freely. He is practical, realistic, matter-of-fact, concerned with the here and now. He is persevering, conscientious, and orderly even in small matters, and inclined to insist that others be the same.[9]

In four of the nine cases in which significant differences were found the types of personality described above were compared with the INTJ type. The thirteen principals in this category produced a low median rating for Hindrance and a score for Thrust high enough to be significantly different from three other median Thrust scores. This same type produced the best median rating of effectiveness.

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[8]Myers, op. cit., p. A-3. [9]Ibid., p. A-6.

The INTJ type is described as the innovator in the field of ideas, principles and systems of thought. He backs up his original insight with determination, perseverance and enduring purpose. He wants his ideas worked out in practice, and spends any time and effort necessary to that end. He is individualistic and independent. There is a danger that he will ignore other people's feelings and views. He can be an efficient executive rich in ideas.[10] High school and college students with the INTJ combination of preferences were found, in one study reported in the manual,[11] to be superior to all other types both in I.Q. and scholastic achievement. It might be expected that persons of this description would produce high scores on the Thrust subtest.

A fourth type, ENFJ appears in four different pairs in Table XXI. This type is associated with low scores for both Hindrance and Aloofness. The description of this type is similar to that presented above for the ESFJ type. Persons of this type are at their best in dealing with other people. They are friendly, tactful and sympathetic. The ENFJ type differs from the ESFJ type in his interest in new ideas and long-range possibilities. He is more impatient with routine.[12] Again the scores on the climate subtests are consistent with the personality description. It would be expected that a principal of this type would be described by his staff as one who is not formal and impersonal in his dealings with others and who does not burden his staff with routine duties.

Two additional observations can be made in reference to Table XX, page 76. First, the modal type for principals, the ESTJ type, was

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[10] *Ibid.*, p. A-8. [11] *Ibid.*, p. 42. [12] *Ibid.*, p. A-6.

associated with median subtest scores that were very near the median for the total group on each subtest. This type and the second most common type, the ENTJ type, were associated with no extreme scores on any climate subtest. It is possible that this is a spurious effect resulting from the standardization of scores. The principals belonging to these two types, however, were also given very average effectiveness ratings by their staffs. These findings could suggest that the most common type of principal is not necessarily the most effective.

Secondly, one type, INTP, was associated with six of a possible eight extreme scores on climate subtests. This type produced the highest median scores for Disengagement and Hindrance and the lowest median scores for Esprit, Intimacy, Thrust and Consideration. Since the group consisted of only four members none of the scores was found, statistically, to be significantly different from others in the group. While it is true that for reasons of probability alone it could be expected that a small group would produce more extreme medians, it is noteworthy that the extremes on each subtest take the direction that could be considered least desirable, judging from the descriptions of the characteristics being examined. It is also noteworthy that principals of the INTP personality type were given the lowest median effectiveness rating by members of their staffs. The possibility exists that the number of principals of this type in the total sample is very small because persons of this type have been eliminated by some selection procedure, formal or otherwise.

The INTP type is described as one who uses his thinking to analyze the world, not to run it. He is quiet, reserved, detachedly curious and

adaptable. He is likely to have insight, ingenuity, quickness of understanding and intellectual curiosity, but he is more interested in reaching solutions than putting them into practice. He is good at pure science, research and mathematics. As a teacher he cares more for the subject than for the students.[13]

The testing of the fifth and final hypothesis connected with this section was carried out to determine significant differences in mean OCDQ subtest scores associated with particular pairs of personality preferences. The pairs were combined in groups of four in such a way that the principals associated with one pair of preferences in the group were not associated with any of the other three. All the principals in the total sample were included in the four pairs of preferences within each group.

Four significant differences in means were determined through the use of the "t" test. Three of these differences occurred between scores for Hindrance. The score associated with the intuition-feeling pair of preferences was sufficiently low to cause it to be significantly different from each of the means with which it was compared.

Persons who prefer the intuition kind of perception and the feeling type of judgment have been described as having originality, insight, and a grasp of the complicated combined with persuasive charm, and a keen insight into people. Intuitives dislike doing things over and over again, are patient with complicated situations and impatient with routine details.[14] It might be expected, therefore, that principals with preferences for both intuition and feeling would not burden their teachers

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[13] Ibid., p. A-2. [14] Ibid., pp. 67,80.

with routine duties, partly because they are impatient with such duties themselves and partly because they are sensitive to the feelings of their staff members in this regard.

Only one significant difference was found between mean scores on the Aloofness subtest. On this subtest, as on the Hindrance subtest, the lowest mean score was associated with the NF combination of preferences. Persons with this combination of preferences were described in the paragraph above. The highest mean score for Aloofness was associated with the opposite pair of preferences, ST. Persons who prefer the sensing type of perception and the thinking type of judgment have been described as combining practicability and dependence upon observation and experience with impersonality and a capacity for analysis and logic. Thinking types are relatively unemotional and are not very interested in peoples' feelings, and tend therefore to make decisions impersonally.[15] It seems reasonable that principals who perceived themselves in that way would be perceived by their staffs to be more formal and impersonal and to prefer rules and policies to face-to-face contacts.

In summary, relationships were indicated between personality variables and four of the eight climate subtests: Production Emphasis, Aloofness, Thrust and Hindrance. Three of these four subtests were designed to describe principals' behavior directly; and the fourth, Hindrance, was designed to describe direct effects of administrative action. The only descriptions of principal behavior that did not show a relationship with personality variables were those included in the Consideration subtest. The indicated relationships were in each case in

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[15] Ibid.

the direction that would be expected in terms of the meanings of the concepts. Since the relationships established were not strong it is understandable that they were established between principal personality variables and descriptions of principal behavior, rather than between principal personality variables and descriptions of teacher behavior.

An interesting trend can be observed in connection with the testing of the last three hypotheses. As the number of personality variables being examined in relation to climate subtests was increased from one to four, the number of significant differences in means and medians increased from one to nine. If this fact is indicative of a trend, it seems likely that no single trait or simple combination of traits is likely to show many significant relationships with organizational climate subtests. Only after descriptions of principals' behavior patterns become more refined through the addition of a greater number of individual characteristics of significance to administrative action can we expect that stronger relationships will be determined.

Summary of Conclusions

A total of ten hypotheses were tested in an attempt to determine the pattern of personality types among principals and to compare this pattern with patterns produced by other sample populations, to determine relationships between principal personality and teacher rating of principal effectiveness, and to determine relationships between principal personality and school organizational climate.

The result of testing the first two of these hypotheses indicated that the pattern of personality types produced by the use of the MBTI with

the sample of principals from this study was very similar to that produced by the sample used in the Von Fange study, and that this pattern was distinguishable from that produced by a group of industry-hired graduates.

The next three hypotheses were tested to determine whether the individual personality types that made up the pattern, and whether the preferences that made up the personality types, were related in any way to a rating of principal effectiveness given by teachers. In every case no significant relationships were found between principal personality characteristics and the global rating of effectiveness given principals by their staffs. If the measures used in connection with the testing of these hypotheses were valid, the findings indicate that no single personality type, as measured by the MBTI, or grouping of such types, is more effective than any other while operating in the variety of administrative situations included in this study.

The final five hypotheses were tested to determine relationships between principal personality and school organizational climate. No overall relationship was established between principal personality type and organizational climate, but a number of relationships were established between personality variables and the OCDQ subtests which describe principal behavior patterns.

Suggestions for Further Research

1. Since the related literature presented in Chapter I suggests in part that the behavior of an individual within a social system is determined by the interaction of at least two important factors,

personality and situation, research designed to study the effects of one of these factors should be designed in such a way that the effects of the other are well controlled. Future research designed to control such factors as school size, school location, principal educational qualifications, number of years spent by principal in present school, and so on, might produce more definite results.

2. Some of the analyses carried out in connection with this study were severely handicapped by virtue of the fact that certain of the personality types and preferences were represented by very few principals. Since the proportions of school principals that can be expected to fall into each category have been determined by the Von Fange study and confirmed by the present study, any future research employing the MBTI should include a large enough sample and should be so designed that all personality types are adequately represented.

3. No relationships were determined between the personality variables measured by the MBTI and teachers' ratings of principals' effectiveness, and relatively few relationships were determined between personality variables and measures of organizational climate. One explanation for these findings is that the range of behavior organized within the personality types and preferences determined by the MBTI is not sufficiently broad to include behaviors of significance to administrative procedures in education. If this explanation is valid, it would seem advisable that future research designed to determine relationships between personality and school organizational climate, and between principal personality and principal effectiveness be conducted using a different personality instrument.

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APPENDIX

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE

Developed by

ANDREW W. HALPIN

and

DON B. CROFT

On the following pages is a list of items that are used to describe the organizational climate or the "personality" of your school. The items describe typical behaviors or conditions that occur within a school. Please indicate to what extent each of these descriptions characterizes **your school.** Please do **not** evaluate the items in terms of "good" or "bad" behavior but read each item carefully and respond in terms of how well the statement describes your school.

It is important that your answers be "independent," so please do not discuss your answers with other teachers. Though there is no time limit, it will probably take you 15 to 20 minutes to complete.

Please be frank in your response with the assurance that individual responses are strictly confidential.

IDENTIFICATION: Please write the name and address of your school on the envelope provided for the completed questionnaire; do NOT write your name on this questionnaire.

Each questionnaire will be given a code number and all responses transferred to IBM cards for processing. Complete anonymity in the analysis of data and the reporting of findings is assured.

DIRECTIONS:

a. READ each item carefully.

b. THINK about how well the statement describes your school.

c. DECIDE whether the behavior or condition described in the item occurs rarely, sometimes, often, or very frequently in your school.

d. DRAW A CIRCLE around **one** of the four letters following the item to show the answer you have selected.

A=Very frequently occurs

B=Often occurs

C=Sometimes occurs

D=Rarely occurs

Please respond to EVERY item.

1.	Teachers' closest friends are other faculty members at this school.	A	B	C	D
2.	The mannerisms of teachers at this school are annoying.	A	B	C	D
3.	Teachers spend time after school with students who have individual problems.	A	B	C	D
4.	Instructions for the operation of teaching aids are available.	A	B	C	D
5.	Teachers invite other faculty members to visit them at home.	A	B	C	D
6.	There is a minority group of teachers who always oppose the majority.	A	B	C	D
7.	Extra books are available for classroom use.	A	B	C	D
8.	Sufficient time is given to prepare administrative reports.	A	B	C	D
9.	Teachers know the family background of other faculty members.	A	B	C	D
10.	Teachers exert group pressure on non-conforming faculty members.	A	B	C	D
11.	In faculty meetings, there is the feeling of "let's get things done."	A	B	C	D
12.	Administrative paper work is burdensome at this school.	A	B	C	D
13.	Teachers talk about their personal life to other faculty members.	A	B	C	D
14.	Teachers seek special favors from the principal.	A	B	C	D
15.	School supplies are readily available for use in classwork.	A	B	C	D
16.	Student progress reports require too much work.	A	B	C	D
17.	Teachers have fun socializing together during school time.	A	B	C	D
18.	Teachers interrupt other faculty members who are talking in staff meetings.	A	B	C	D
19.	Most of the teachers here accept the faults of their colleagues.	A	B	C	D
20.	Teachers have too many committee requirements.	A	B	C	D
21.	There is considerable laughter when teachers gather informally.	A	B	C	D
22.	Teachers ask nonsensical questions in faculty meetings.	A	B	C	D
23.	Custodial service is available when needed.	A	B	C	D
24.	Routine duties interfere with the job of teaching.	A	B	C	D
25.	Teachers prepare administrative reports by themselves.	A	B	C	D

26.	Teachers ramble when they talk in faculty meetings.	A	B	C	D
27.	Teachers at this school show much school spirit.	A	B	C	D
28.	The principal goes out of his way to help teachers.	A	B	C	D
29.	The principal helps teachers solve personal problems.	A	B	C	D
30.	Teachers at this school stay by themselves.	A	B	C	D
31.	The teachers accomplish their work with great vim, vigor, and pleasure.	A	B	C	D
32.	The principal sets an example by working hard himself.	A	B	C	D
33.	The principal does personal favors for teachers.	A	B	C	D
34.	Teachers eat lunch by themselves in their own classrooms.	A	B	C	D
35.	The morale of the teachers is high.	A	B	C	D
36.	The principal uses constructive criticism.	A	B	C	D
37.	The principal stays after school to help teachers finish their work.	A	B	C	D
38.	Teachers socialize together in small select groups.	A	B	C	D
39.	The principal makes all class-scheduling decisions.	A	B	C	D
40.	Teachers are contacted by the principal each day.	A	B	C	D
41.	The principal is well prepared when he speaks at school functions.	A	B	C	D
42.	The principal helps staff members settle minor differences.	A	B	C	D
43.	The principal schedules the work for the teachers.	A	B	C	D
44.	Teachers leave the grounds during the school day.	A	B	C	D
45.	Teachers help select which courses will be taught.	A	B	C	D
46.	The principal corrects teachers' mistakes.	A	B	C	D
47.	The prinicipal talks a great deal.	A	B	C	D
48.	The principal explains his reasons for criticism to teachers.	A	B	C	D
49.	The principal tries to get better salaries for teachers.	A	B	C	D
50.	Extra duty for teachers is posted conspicuously.	A	B	C	D
51.	The rules set by the principal are never questioned.	A	B	C	D
52.	The principal looks out for the personal welfare of teachers.	A	B	C	D
53.	School secretarial service is available for teachers' use.	A	B	C	D
54.	The principal runs the faculty meeting like a business conference.	A	B	C	D
55.	The principal is in the building before teachers arrive.	A	B	C	D
56.	Teachers work togther preparing administrative reports.	A	B	C	D
57.	Faculty meetings are organized according to a tight agenda.	A	B	C	D
58.	Faculty meetings are mainly principal-report meetings.	A	B	C	D
59.	The principal tells teachers of new ideas he has run across.	A	B	C	D
60.	Teachers talk about leaving the school system.	A	B	C	D
61.	The principal checks the subject-matter ability of teachers.	A	B	C	D
62.	The principal is easy to understand.	A	B	C	D
63.	Teachers are informed of the results of a supervisor's visit.	A	B	C	D
64.	The principal insures that teachers work to their full capacity.	A	B	C	D

(OVER)

SOME INFORMATION ABOUT YOU AND YOUR SCHOOL

65. Number of teachers in your school, including the principal (check one):

..... (1) 4 or fewer
..... (2) 5 to 9
..... (3) 10 to 14
..... (4) 15 to 19
..... (5) 20 to 24
..... (6) 25 to 29
..... (7) 30 to 39
..... (8) 40 to 49
..... (9) 50 or more

66. What grades does your school include? Check the one below which most closely describes your school.

..... (1) Gr. 1 to 6
..... (2) Gr. 1 to 8
..... (3) Gr. 1 to 9
..... (4) Gr. 1 to 11
..... (5) Gr. 1 to 12
..... (6) Gr. 7 to 9
..... (7) Gr. 7 to 12
..... (8) Gr. 9 to 12
..... (9) Gr. 10 to 12

67. How long have you been in your present school, including this year?

..... (1) 1 yr.
..... (2) 2 yrs.
..... (3) 3 or 4 yrs.
..... (4) 5 or 6 yrs.
..... (5) 7 to 8 yrs.
..... (6) 9 or 10 years
..... (7) 11 to 15 yrs.
..... (8) 16 to 20 yrs.
..... (9) 21 yrs. or more

68. How many years of teaching experience do you have, including the present year?

..... (1) 1 yr.
..... (2) 2 yrs.
..... (3) 3 or 4 yrs.
..... (4) 5 or 6 yrs.
..... (5) 7 or 8 yrs.
..... (6) 9 or 10 yrs.
..... (7) 11 to 15 yrs.
..... (8) 16 to 20 yrs.
..... (9) 21 yrs. or more

69. Your sex:

..... (1) Male
..... (2) Female

70. What is your age?

..... (1) under 24 yrs.
..... (2) 25-29 yrs.
..... (3) 30-34 yrs.
..... (4) 35-39 yrs.
..... (5) 40-44 yrs.
..... (6) 45-49 yrs.
..... (7) 50-54 yrs.
..... (8) 55-59 yrs.
..... (9) 60 yrs. and over

71. How many years of training are you credited with for salary purposes? (Please drop fractional years).

..... (1) 1 yr.
..... (2) 2 yrs.
..... (3) 3 yrs.
..... (4) 4 yrs.
..... (5) 5 yrs.
..... (6) 6 yrs.

72. Compared with other schools known to you, how good a job do you judge your school does in educating the students who come to it? (check one)

..... (1) oustanding
..... (2) very good
..... (3) slightly above average
..... (4) slightly below average
..... (5) poor
..... (6) very poor

73. If you are the principal please check here (1) ..... and omit the next two items.

74. How well satisfied are you with all aspects of your teaching situation in your present school? (check one)

..... (1) enthusiastic
..... (2) satisfied
..... (3) fairly well satisfied
..... (4) somewhat dissatisfied
..... (5) dissatisfied
..... (6) very dissatisfied

75. How effective do you consider your principal to be in performing all the various functions which he should perform? (This item is for research purposes only and even averages of scores are strictly confidential).

..... (1) outstanding,
..... (2) very good
..... (3) slightly above average
..... (4) slightly below average
..... (5) poor
..... (6) very poor

76. ..... 77. ..... 78. ..... 79. ..... 80. .....

(Thank you. Write name and address of school on envelope)

MYERS-BRIGGS TYPE INDICATOR

Form F

READ THESE DIRECTIONS FIRST:

1. This is a test to show which sides of your personality you have developed the most.

2. The answer you choose to any question is neither "right" nor "wrong." It simply helps to point out what type of person you are, and therefore where your special strengths lie and what sort of work you will like to do.

3. For each question, choose the answer which comes **closest** to how you usually feel or act. Mark your choice on the separate answer sheet, as shown here.

Sample Question

167. Are your interests
(A) few and lasting
(B) varied

Sample Answer Sheet

	A	B
167.	⋯	▬

If your interests are varied, you would mark answer "B" as it is marked on the sample answer sheet. If they are few and lasting you would mark "A."

4. If you find a question where you cannot choose, don't mark both answers. Just skip the question and go on.

NOW TAKE YOUR ANSWER SHEET

5. Fill in all facts called for at the top of the answer sheet.

THEN START WITH QUESTION 1 AND WORK STRAIGHT THROUGH TO THE END OF THE TEST WITHOUT STOPPING

Educational Testing Service, Princeton, New Jersey

PART I

1. Does following a schedule
   (A) appeal to you
   (B) cramp you

2. Do you usually get on better with
   (A) imaginative people
   (B) realistic people

3. If strangers are staring at you in a crowd, do you
   (A) often become aware of it
   (B) seldom notice it

4. Are you more careful about
   (A) people's feelings
   (B) their rights

5. Are you
   (A) inclined to enjoy deciding things
   (B) just as glad to have circumstances decide a matter for you

6. As a guest, do you more enjoy
   (A) joining in the talk of the group
   (B) talking separately with people you know well

7. When you have more knowledge or skill in something than the people around you, is it more satisfying
   (A) to guard your superior knowledge
   (B) to share it with those who want to learn

8. When you have done all you can to remedy a troublesome situation, are you
   (A) able to stop worrying about it
   (B) still more or less haunted by it

9. If you were asked on a Saturday morning what you were going to do that day, would you
   (A) be able to tell pretty well
   (B) list twice as many things to do as any day can hold
   (C) have to wait and see

10. Do you think on the whole that
    (A) children have the best of it
    (B) life is more interesting for grown-ups

11. In doing something which many other people do, does it appeal more to you
    (A) to do it in the accepted way
    (B) to invent a way of your own

12. When you were small, did you
    (A) feel sure of your parents' love and devotion to you
    (B) feel that they admired and approved of some other child more than they did of you

13. Do you
    (A) rather prefer to do things at the last minute
    (B) find it hard on the nerves

14. If a breakdown or mix-up halted a job on which you and a lot of others were working, would your impulse be

(A) to enjoy the breathing spell

(B) to look for some part of the work where you could still make progress

(C) to join the "trouble-shooters" who were wrestling with the difficulty

15. Do you

(A) show your feelings freely as you go along

(B) keep them to yourself

16. When you have decided upon a course of action, do you

(A) reconsider it if unforeseen disadvantages are pointed out to you

(B) usually put it through to a finish, however it may inconvenience yourself and others

17. In reading for pleasure, do you

(A) enjoy odd or original ways of saying things

(B) wish writers would say exactly what they mean

18. In any of the ordinary emergencies of life (not matters of life or death), do you prefer

(A) to take orders and be helpful

(B) to give orders and be responsible

19. At parties, do you

(A) sometimes get bored

(B) always have fun

20. Is it harder for you to adapt to

(A) routine

(B) constant change

21. Would you be more willing to take on a heavy load of extra work for the sake of

(A) additional comforts and luxuries

(B) the chance of becoming famous through your work

22. Are the things you plan or undertake

(A) almost always things you can finish

(B) frequently things that prove too difficult to carry through

23. Are you more attracted

(A) to a person with a quick and brilliant mind

(B) to a practical person with a lot of horse sense

24. Do you find people in general

(A) slow to appreciate and accept ideas not their own

(B) reasonably open-minded

25. When you have to meet strangers, do you find it

(A) pleasant, or at least easy

(B) something that takes a good deal of effort

26. Are you inclined

(A) to value sentiment above logic

(B) to value logic above sentiment

GO ON TO THE NEXT PAGE

27. Do you like

(A) to arrange your dates and parties some distance ahead

(B) to be free to do whatever looks like fun at the time

28. In making plans which concern other people, do you prefer

(A) to take them into your confidence

(B) to keep them in the dark till the last possible moment

29. Which of these two is the higher compliment

(A) he is a person of real feeling

(B) he is consistently reasonable

30. When you have to make up your mind about something, do you like to

(A) do it right away

(B) postpone the decision as long as you reasonably can

31. When you run into an unexpected difficulty in something you are doing, do you feel it to be

(A) a piece of bad luck

(B) a nuisance

(C) all in the day's work

32. Do you almost always

(A) enjoy the present moment and make the most of it

(B) feel that something just ahead is more important

33. Are you

(A) easy to get to know

(B) hard to get to know

34. With most of the people you know, do you

(A) feel that they mean what they say

(B) feel you must watch for a hidden meaning

35. When you start a big project that is due in a week, do you

(A) take time to list the separate things to be done and the order of doing them

(B) plunge in

36. In solving a personal problem, do you

(A) feel more confident about it if you have asked other people's advice

(B) feel that nobody else is in as good a position to judge as you are

37. Do you admire more the person who is

(A) conventional enough never to make himself conspicuous

(B) too original and individual to care whether he is conspicuous or not

38. Which mistake would be more natural for you

(A) to drift from one thing to another all your life

(B) to stay in a rut that didn't suit you

39. When you run across people who are mistaken in their beliefs, do you feel that

(A) it is your duty to set them right

(B) it is their privilege to be wrong

40. When an attractive chance for leadership comes to you, do you

(A) accept it if it is something you can really swing

(B) sometimes let it slip because you are too modest about your own abilities

(C) or doesn't leadership ever attract you

41. In your crowd, are you

(A) one of the last to hear what is going on

(B) full of news about everybody

42. Are you at your best

(A) when dealing with the unexpected

(B) when following a carefully worked-out plan

43. Does the importance of doing well on a test make it generally

(A) easier for you to concentrate and do your best

(B) harder for you to concentrate and do yourself justice

44. In your free hours, do you

(A) very much enjoy stopping somewhere for refreshments

(B) usually want to use the time and money another way

45. At the time in your life when things piled up on you the worst, did you find

(A) that you had got into an impossible situation

(B) that by doing only the necessary things you could work your way out

46. Do most of the people you know

(A) take their fair share of praise and blame

(B) grab all the credit they can but shift any blame on to someone else

47. When you are in an embarrassing spot, do you usually

(A) change the subject

(B) turn it into a joke

(C) days later, think of what you should have said

48. Are such emotional "ups and downs" as you may feel

(A) very marked

(B) rather moderate

49. Do you think that having a daily routine is

(A) a comfortable way of getting things done

(B) painful even when necessary

50. Are you naturally

(A) a "good mixer"

(B) rather quiet and reserved in company

51. In your early childhood (at six or eight), did you

(A) feel your parents were very wise people who should be obeyed

(B) find their authority irksome and escape it when possible

GO ON TO THE NEXT PAGE

52. When you have a suggestion that ought to be made at a meeting, do you

(A) stand up and make it as a matter of course

(B) hesitate to do so

53. Do you get more annoyed at

(A) fancy theories

(B) people who don't like theories

54. When helping in a group undertaking, are you more often struck by

(A) the inspiring quality of shoulder to shoulder cooperation

(B) the annoying inefficiency of loosely organized group work

(C) or don't you get involved in group undertakings

55. When you go somewhere for the day, would you rather

(A) plan what you will do and when

(B) just go

56. Are the things you worry about

(A) often really not worth it

(B) always more or less serious

57. In making an important decision on a given set of facts, do you

(A) find you can trust your feeling judgments

(B) need to set feeling aside and rely on analysis and cold logic

58. In the matter of friends, do you tend to seek

(A) deep friendship with a very few people

(B) broad friendship with many different people

59. Do you think your friends

(A) feel you are open to suggestions

(B) know better than to try to talk you out of anything you've decided to do

60. Does the idea of making a list of what you should get done over a week-end

(A) appeal to you

(B) leave you cold

(C) positively depress you

61. In traveling, would you rather go

(A) with a companion who had made the trip before and "knew the ropes"

(B) alone or with someone greener at it than yourself

62. Which of these two reasons for doing a thing sounds more attractive to you

(A) this is an opportunity that may lead to bigger things

(B) this is an experience that you are sure to enjoy

63. In your personal beliefs, do you

(A) cherish faith in things which cannot be proved

(B) believe only those things which can be proved

64. Would you rather

(A) support the established methods of doing good

(B) analyze what is still wrong and attack unsolved problems

65. Has it been your experience that you

(A) frequently fall in love with a notion or project which turns out to be a disappointment—so that you "go up like a rocket and come down like the stick"

(B) use enough judgment on your enthusiasms so that they do not let you down

66. Would you judge yourself to be

(A) more enthusiastic than the average person

(B) less excitable than the average person

67. If you divided all the people you know into those you like, those you dislike, and those toward whom you feel indifferent, would there be more of

(A) those you like

(B) those you dislike

68. In your daily work, do you (for this item *only*, if two are true mark both)

(A) rather enjoy an emergency that makes you work against time

(B) hate to work under pressure

(C) usually plan your work so you won't need to

69. Are you more likely to speak up in

(A) praise

(B) blame

70. Is it higher praise to call someone

(A) a man of vision

(B) a man of common sense

71. When playing cards, do you enjoy most

(A) the sociability

(B) the excitement of winning

(C) the problem of getting the most out of each hand

(D) the risk of playing for stakes

(E) or don't you enjoy playing cards

GO ON TO PART II

PART II

Sample Question

Which word appeals to you more?
168. (A) long short (B)

Sample Answer Sheet

	A	B
168.	▬	⋯

If "long" appeals to you more, you would mark answer "A" as it is marked on the sample answer sheet. If "short" appeals to you more, you would mark "B".

WHICH WORD IN EACH PAIR APPEALS TO YOU MORE?

72.	(A)	firm-minded	warm-hearted	(B)
73.	(A)	imaginative	matter-of-fact	(B)
74.	(A)	systematic	spontaneous	(B)
75.	(A)	congenial	effective	(B)
76.	(A)	theory	certainty	(B)
77.	(A)	party	theater	(B)
78.	(A)	build	invent	(B)
79.	(A)	analyze	sympathize	(B)
80.	(A)	popular	intimate	(B)
81.	(A)	benefits	blessings	(B)
82.	(A)	casual	correct	(B)
83.	(A)	active	intellectual	(B)
84.	(A)	uncritical	critical	(B)
85.	(A)	scheduled	unplanned	(B)
86.	(A)	convincing	touching	(B)
87.	(A)	reserved	talkative	(B)
88.	(A)	statement	concept	(B)
89.	(A)	soft	hard	(B)
90.	(A)	production	design	(B)
91.	(A)	forgive	tolerate	(B)
92.	(A)	hearty	quiet	(B)
93.	(A)	who	what	(B)
94.	(A)	impulse	decision	(B)
95.	(A)	speak	write	(B)
96.	(A)	affection	tenderness	(B)
97.	(A)	punctual	leisurely	(B)
98.	(A)	sensible	fascinating	(B)
99.	(A)	changing	permanent	(B)
100.	(A)	determined	devoted	(B)
101.	(A)	system	zest	(B)

WHICH WORD IN EACH PAIR APPEALS TO YOU MORE?

102.	(A)	facts	ideas	(B)
103.	(A)	compassion	foresight	(B)
104.	(A)	concrete	abstract	(B)
105.	(A)	justice	mercy	(B)
106.	(A)	calm	lively	(B)
107.	(A)	make	create	(B)
108.	(A)	wary	trustful	(B)
109.	(A)	orderly	easy-going	(B)
110.	(A)	approve	question	(B)
111.	(A)	gentle	firm	(B)
112.	(A)	foundation	spire	(B)
113.	(A)	quick	careful	(B)
114.	(A)	thinking	feeling	(B)
115.	(A)	theory	experience	(B)
116.	(A)	sociable	detached	(B)
117.	(A)	sign	symbol	(B)
118.	(A)	systematic	casual	(B)
119.	(A)	literal	figurative	(B)
120.	(A)	peacemaker	judge	(B)
121.	(A)	accept	alter	(B)
122.	(A)	agree	discuss	(B)
123.	(A)	executive	scholar	(B)

GO ON TO PART III

PART III

ANSWER THESE QUESTIONS USING THE DIRECTIONS FOR PART I, ON THE FRONT COVER

124. Do you find the more routine parts of your day
   (A) restful
   (B) boring

125. If you think you are not getting a square deal in a club or team to which you belong, is it better
   (A) to shut up and take it
   (B) to use the threat of resigning if necessary to get your rights

126. Can you
   (A) talk easily to almost anyone for as long as you have to
   (B) find a lot to say only to certain people or under certain conditions

127. When strangers notice you, does it
   (A) make you uncomfortable
   (B) not bother you at all

128. If you were a teacher, would you rather teach
   (A) fact courses
   (B) courses involving theory

129. In your crowd, are you usually
   (A) one of the first to try a new thing
   (B) one of the last to fall into line

130. In solving a difficult personal problem, do you
   (A) tend to do more worrying than is useful in reaching a decision
   (B) feel no more anxiety than the situation requires

131. If people seem to slight you, do you
   (A) tell yourself they didn't mean anything by it
   (B) distrust their good will and stay on guard with them thereafter

132. When there is a special job to be done, do you like
   (A) to organize it carefully before you start
   (B) to find out what is necessary as you go along

133. Do you think it is a worse fault
   (A) to show too much warmth
   (B) not to have warmth enough

134. At a party, do you like
   (A) to help get things going
   (B) to let the others have fun in their own way

135. When a new opportunity comes up, do you
   (A) decide about it fairly quickly
   (B) sometimes miss out through taking too long to make up your mind

136. In managing your life, do you tend
   (A) to undertake too much and get into a tight spot
   (B) to hold yourself down to what you can comfortably swing

137. When you find yourself definitely in the wrong, would you rather

(A) admit you are wrong

(B) not admit it, though everyone knows it

(C) or don't you ever find yourself in the wrong

138. Can the new people you meet tell what you are interested in

(A) right away

(B) only after they really get to know you

139. In your home life, when you come to the end of some undertaking, are you

(A) clear as to what comes next and ready to tackle it

(B) glad to relax until the next inspiration hits you

140. Do you think it more important to be able

(A) to see the possibilities in a situation

(B) to adjust to the facts as they are

141. Would you say that the people you know personally owe their successes more to

(A) ability and hard work

(B) luck

(C) bluff, pull, and shoving themselves ahead of others

142. In getting a job done, do you depend on

(A) starting early, so as to finish with time to spare

(B) the extra speed you develop at the last minute

143. After associating with superstitious people, have you

(A) found yourself slightly affected by their superstitions

(B) remained entirely unaffected

144. When you don't agree with what has just been said, do you usually

(A) let it go

(B) put up an argument

145. Would you rather be considered

(A) a practical person

(B) an ingenious person

146. Out of all the good resolutions you may have made, are there

(A) some you have kept to this day

(B) none that have really lasted

147. Would you rather work under someone who is

(A) always kind

(B) always fair

148. In a large group, do you more often

(A) introduce others

(B) get introduced

149. Would you rather have as a friend someone who

(A) is always coming up with new ideas

(B) has both feet on the ground

150. When you have to do business with strangers do you feel

(A) confident and at ease

(B) a little fussed or afraid that they won't want to bother with you

151. When it is settled well in advance that you will do a certain thing at a certain time, do you find it

(A) nice to be able to plan accordingly

(B) a little unpleasant to be tied down

GO ON TO THE NEXT PAGE

152. Do you feel that sarcasm

(A) should never be used where it can hurt people's feelings

(B) is too effective a form of speech to be discarded for such a reason

153. When you think of some little thing you should do or buy, do you

(A) often forget it until much later

(B) usually get it down on paper before it escapes you

(C) always carry through on it without reminders

154. Do you more often let

(A) your heart rule your head

(B) your head rule your heart

155. In listening to a new idea, are you more anxious to

(A) find out all about it

(B) judge whether it is right or wrong

156. Are you oppressed by

(A) many different worries

(B) comparatively few

157. When you don't approve of the way a friend is acting, do you

(A) wait and see what happens

(B) do or say something about it

158. Do you think it is a worse fault to be

(A) unsympathetic

(B) unreasonable

159. When a new situation comes up which conflicts with your plans, do you try first

(A) to change your plans

(B) to change the situation

160. Do you think the people close to you know how you feel

(A) about most things

(B) only when you have had some special reason to tell them

161. When you have a serious choice to make, do you

(A) almost always come to a clear-cut decision

(B) sometimes find it so hard to decide that you do not whole-heartedly follow up either choice

162. On most matters, do you

(A) have a pretty definite opinion

(B) like to keep an open mind

163. As you get to know a person better, do you more often find

(A) that he lets you down or disappoints you in some way

(B) that, taken all in all, he improves upon acquaintance

164. When the truth would not be polite, are you more likely to tell

(A) a polite lie

(B) the impolite truth

165. In your scheme of living, do you prefer to be

(A) original

(B) conventional

166. Would you have liked to argue the meaning of

(A) a lot of these questions

(B) only a few

END OF TEST